

KIC 008981446

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008981446-01	OBS	No	0.981579	131.936446	22.2	3.850	8.4	7.3	2.09	6212	1.08	14217.48
008981446-02	OBS	No	0.981830	132.137654	28.0	4.076	8.6	9.7	2.09	6212	1.17	14212.62
008981446-03	OBS	No	41.835501	147.768747	285.0	3.345	7.2	7.1	2.09	6212	3.54	95.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008981446-01	OBS	FP	0.00	1	0	1	0	LPP_DV—HALO_GHOST
008981446-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
008981446-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

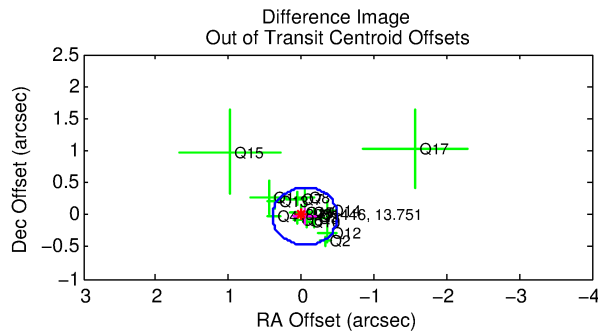
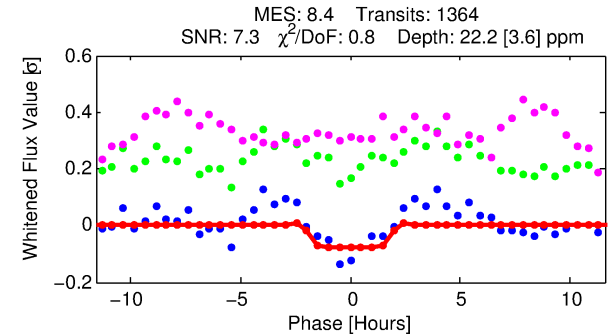
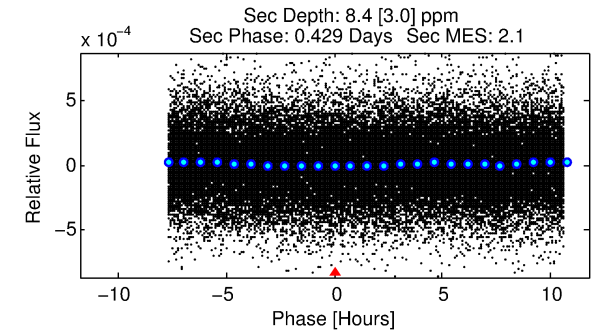
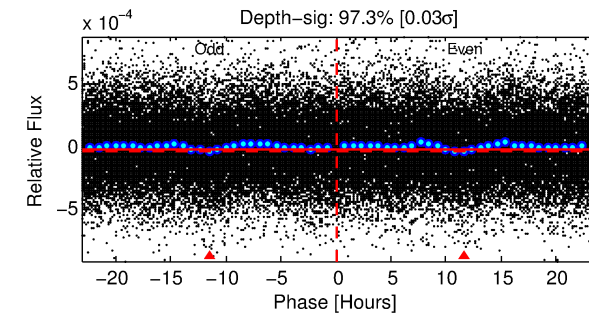
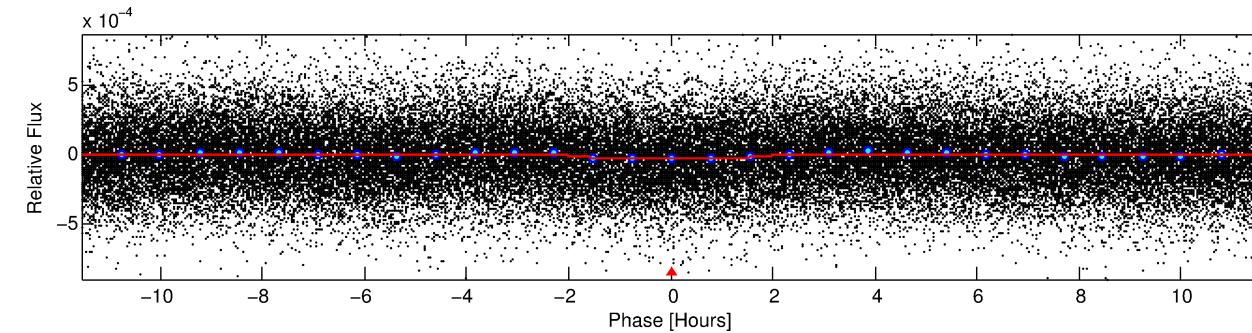
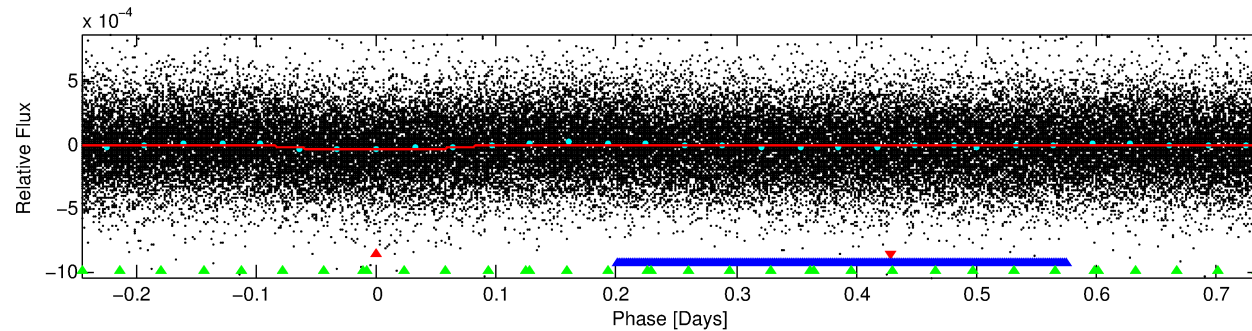
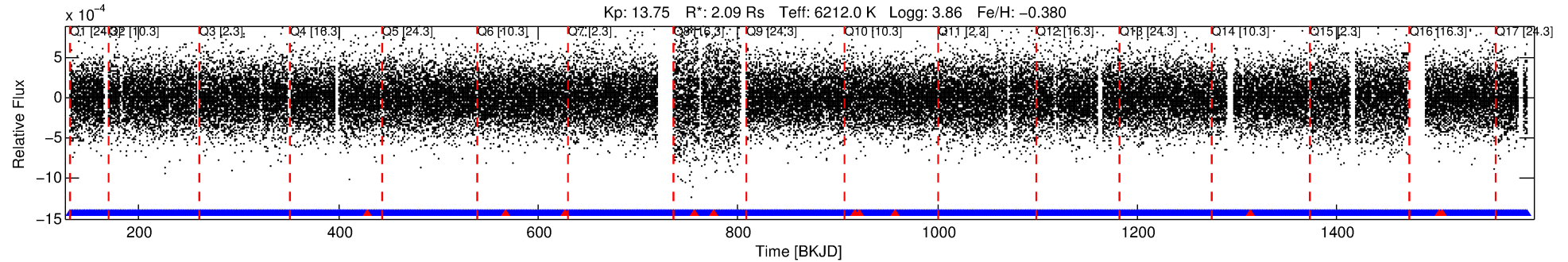
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008981446-01

No Significant Match Found

DV One-Page Summary

KIC: 8981446 Candidate: 1 of 3 Period: 0.982 d



DV Fit Results:

Period = 0.98158 [0.00002] d
Epoch = 131.9364 [0.0056] BKJD
Rp/R* = 0.0047 [0.0023]
a/R* = 1.52 [2.25]
b = 0.77 [1.39]
Seff = 14217.48 [12043.87]
Teff = 2784 [590] K
Rp = 1.08 [0.73] Re
a = 0.0203 [0.0101] AU
Ag = 1.63 [2.18] [0.29 σ]
Teffp = 4867 [1276] K [1.48 σ]

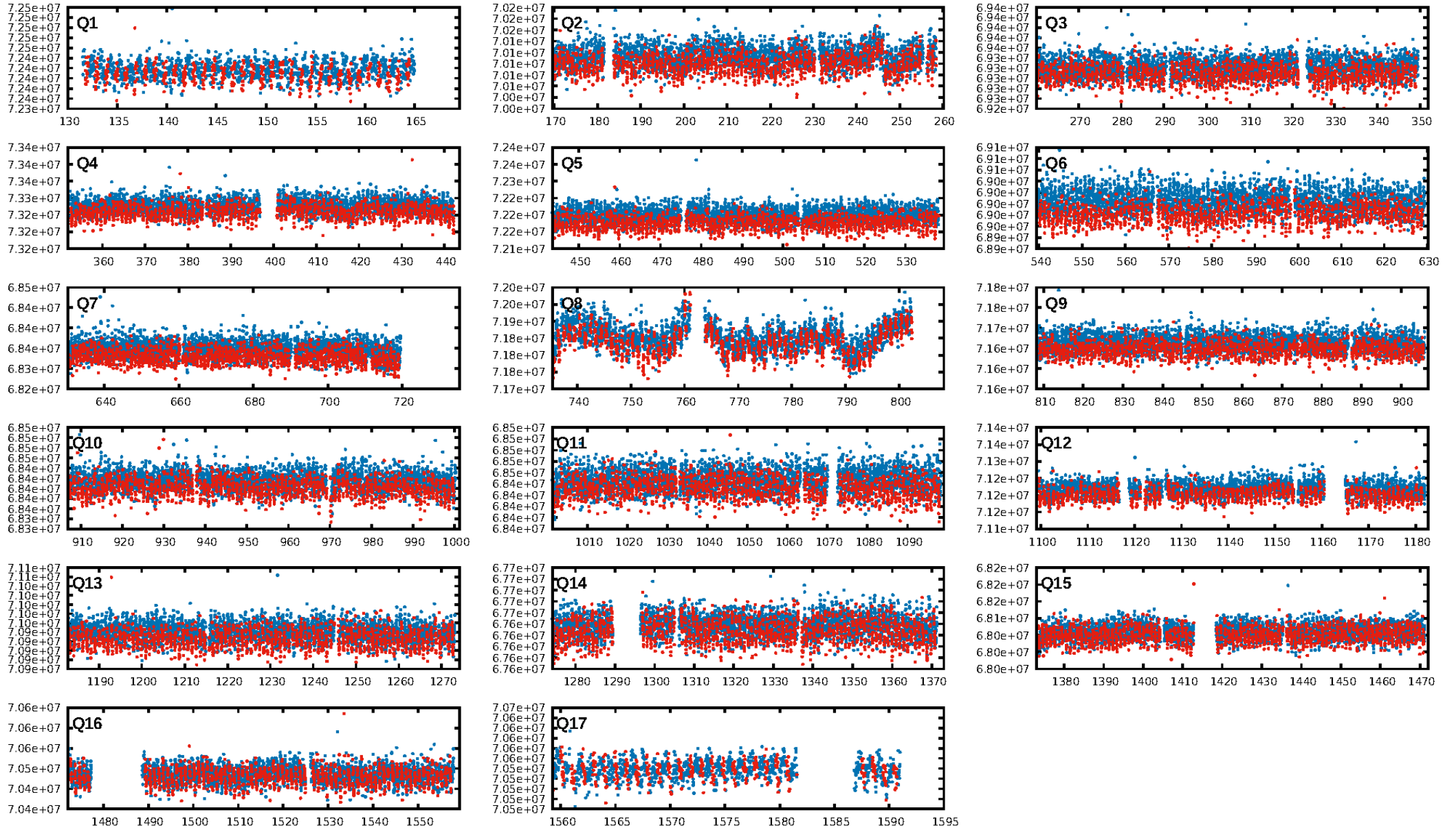
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.15e-20
RollingBand-fgt: 0.99 [1293/1304]
GhostDiagnostic-chr: 0.07771
Centroid-sig: 1.6%
Centroid-so: 2.138 arcsec [1.36 σ]
OotOffset-rm: 0.056 arcsec [0.37 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.161 arcsec [1.20 σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 0.24 [4/17]

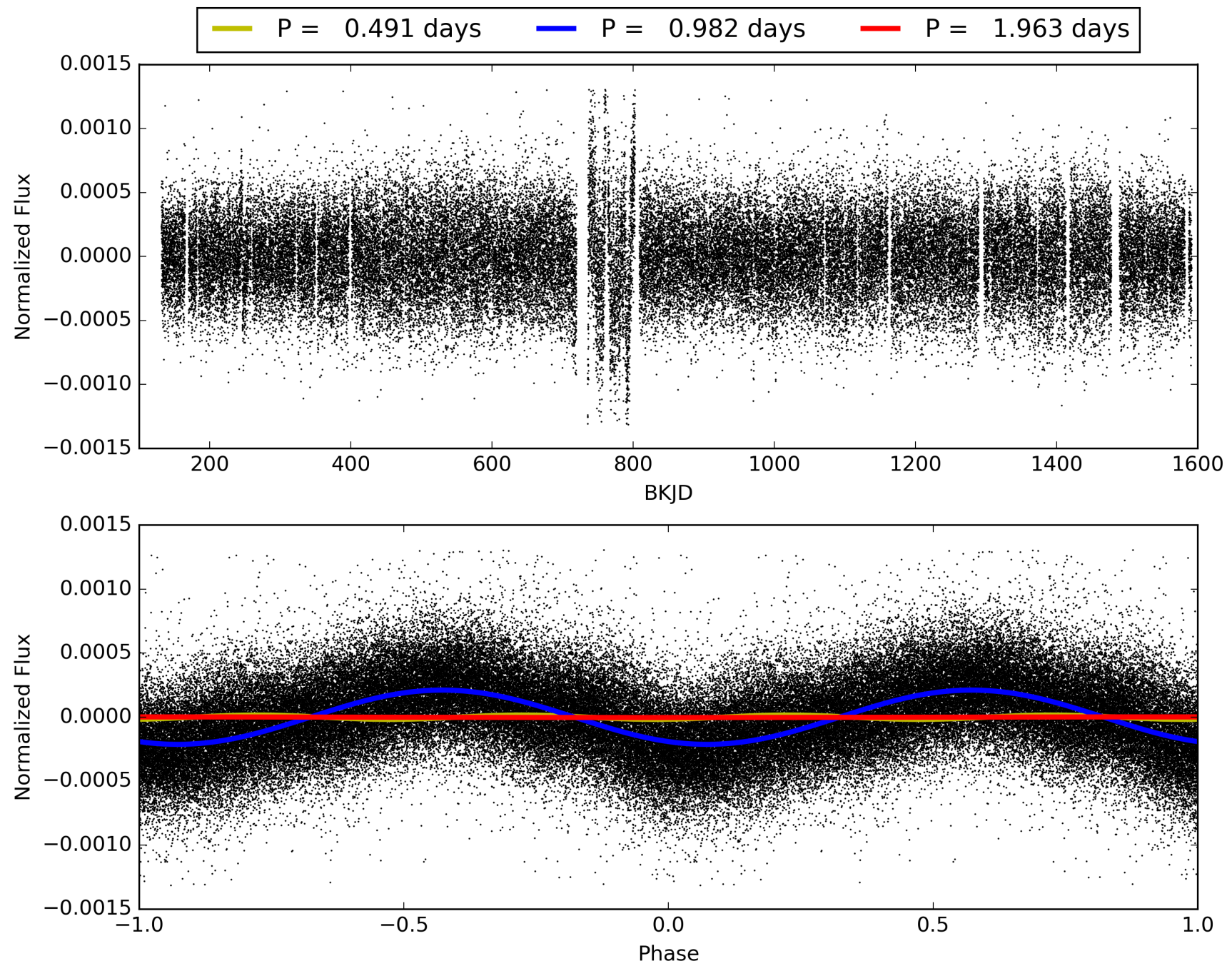
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:35:01 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008981446-01, PDC Light Curves

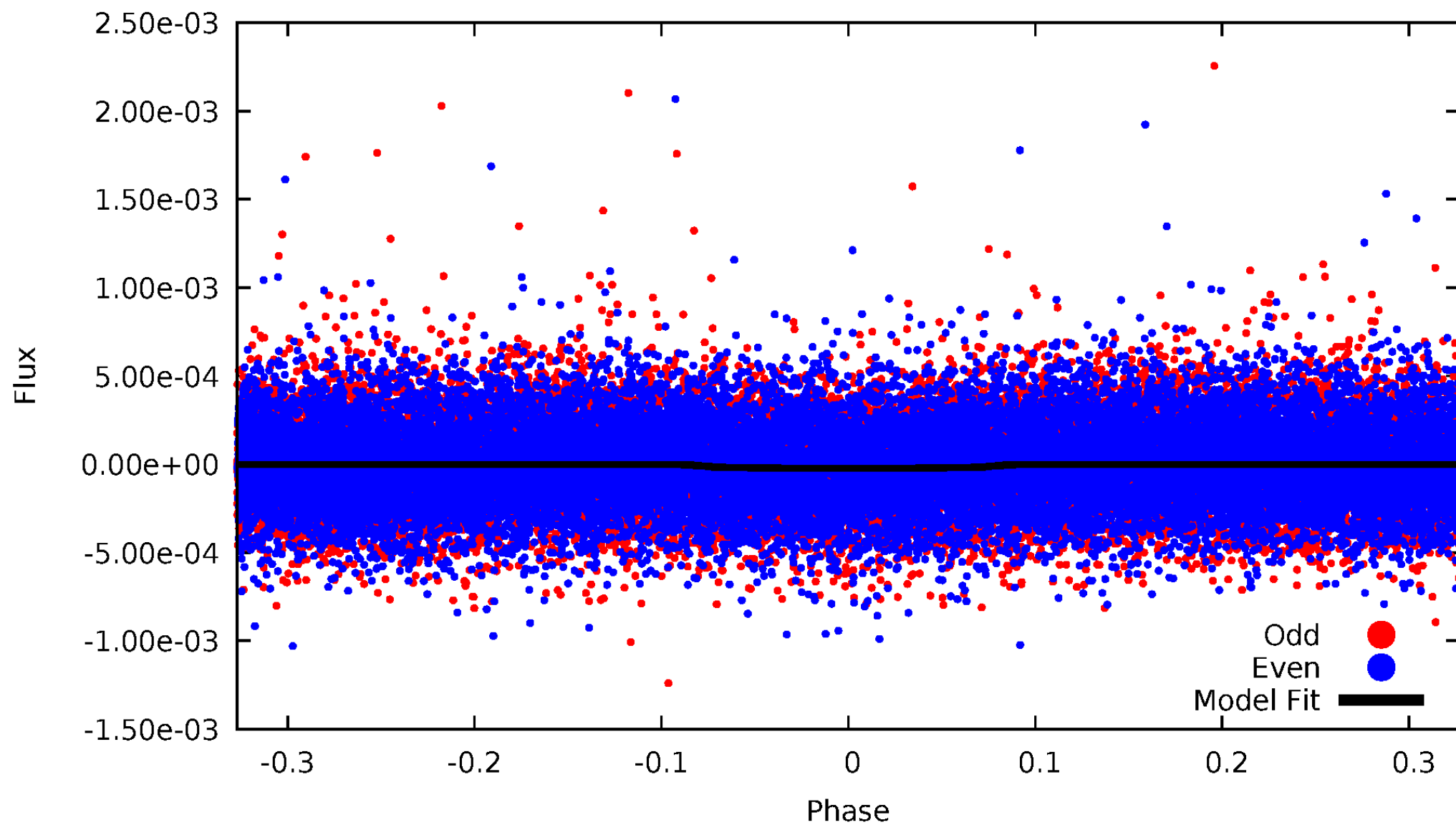


TCE 008981446-01



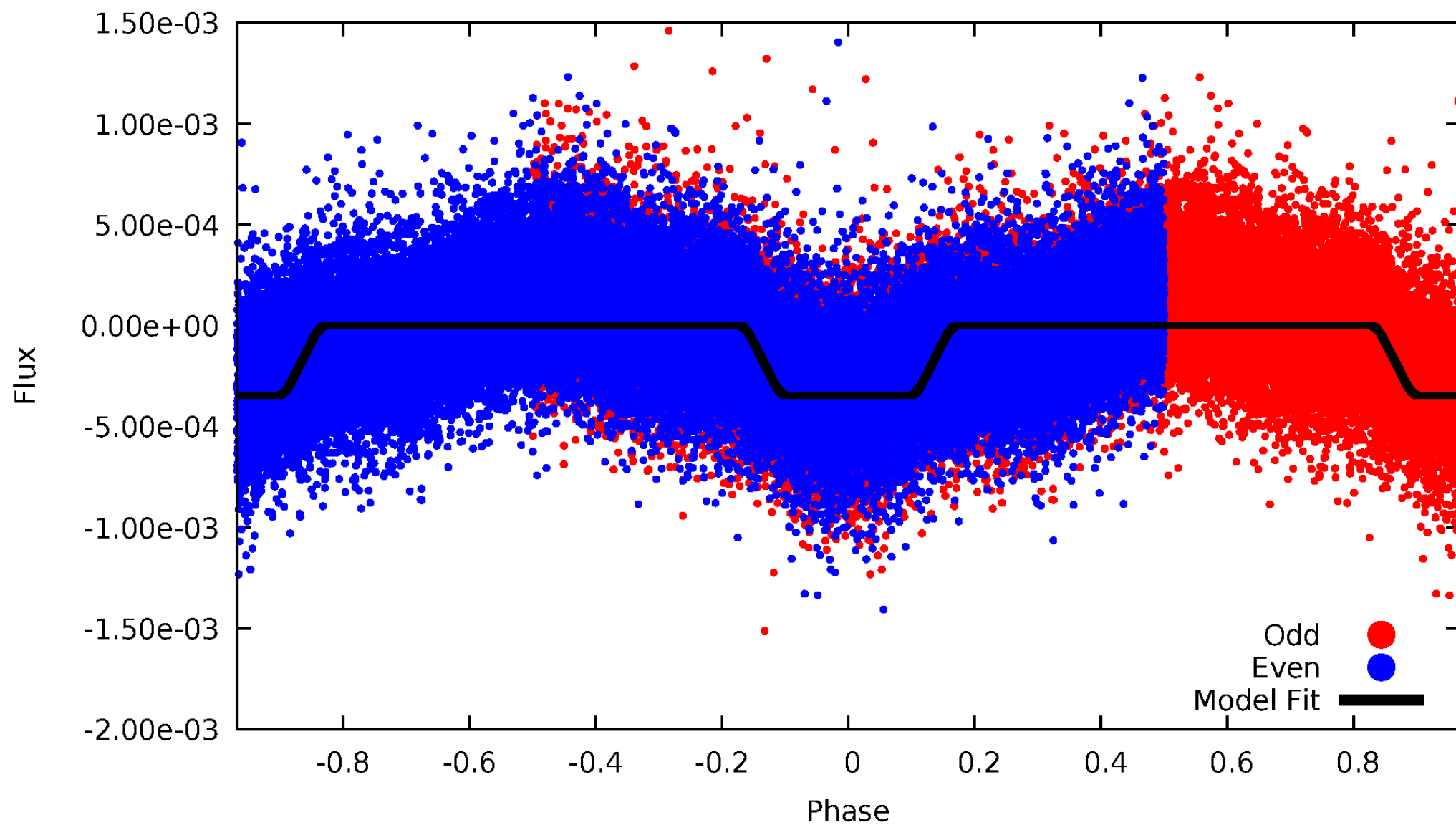
DV Odd/Even

TCE 008981446-01

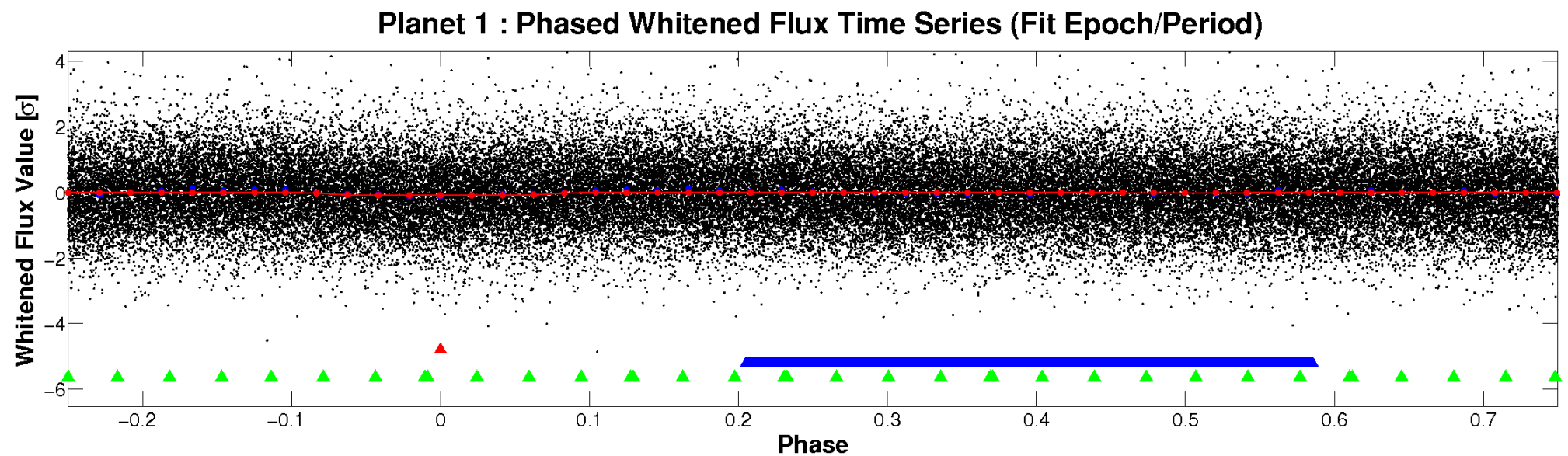
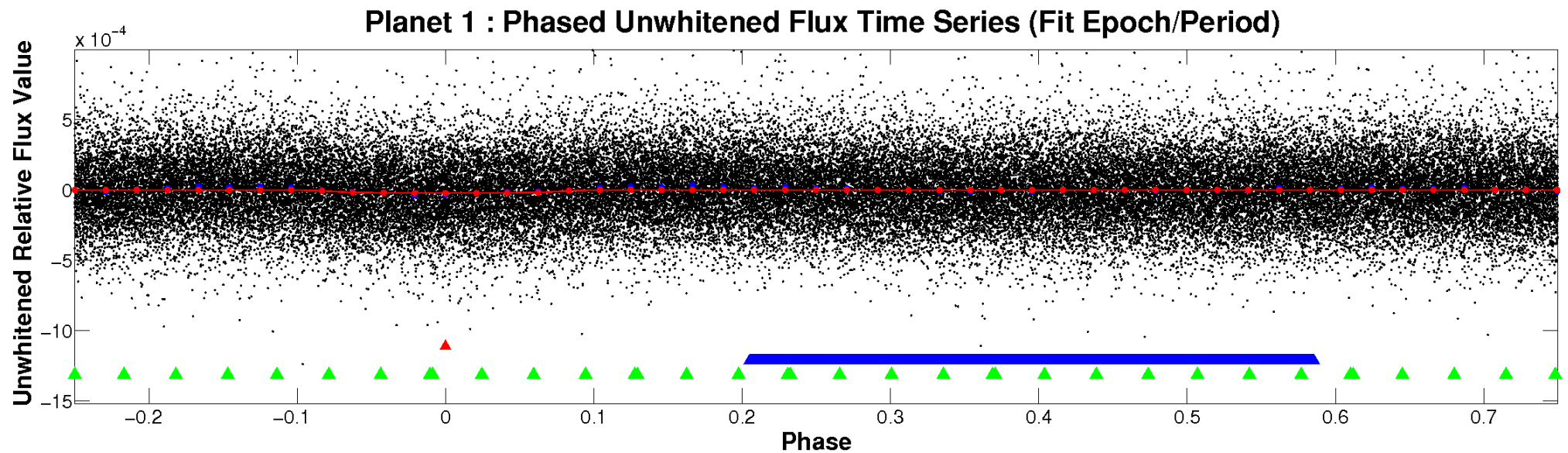


ALT Odd/Even

TCE 008981446-01

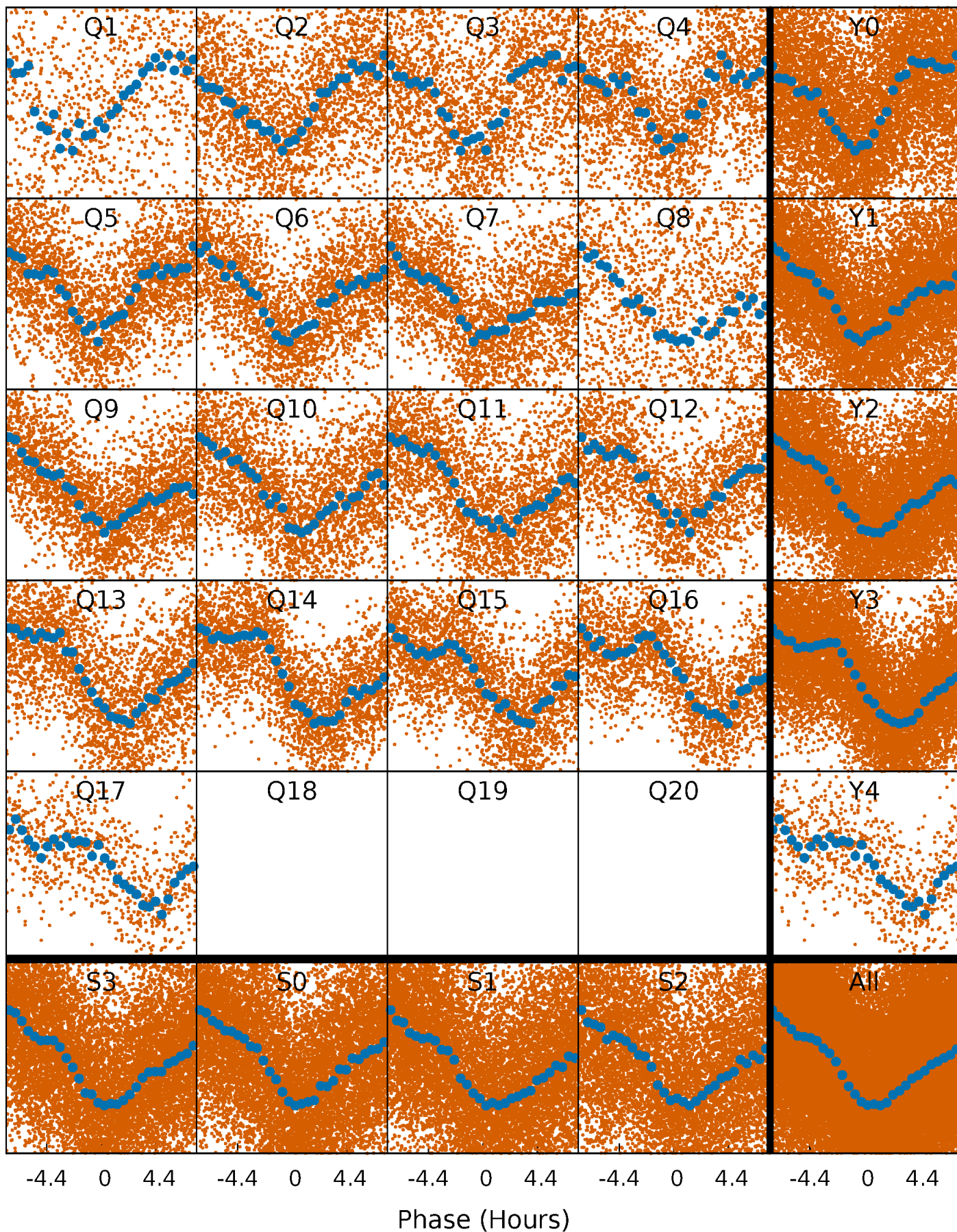


Non-Whitened Vs. Whitened Light Curve



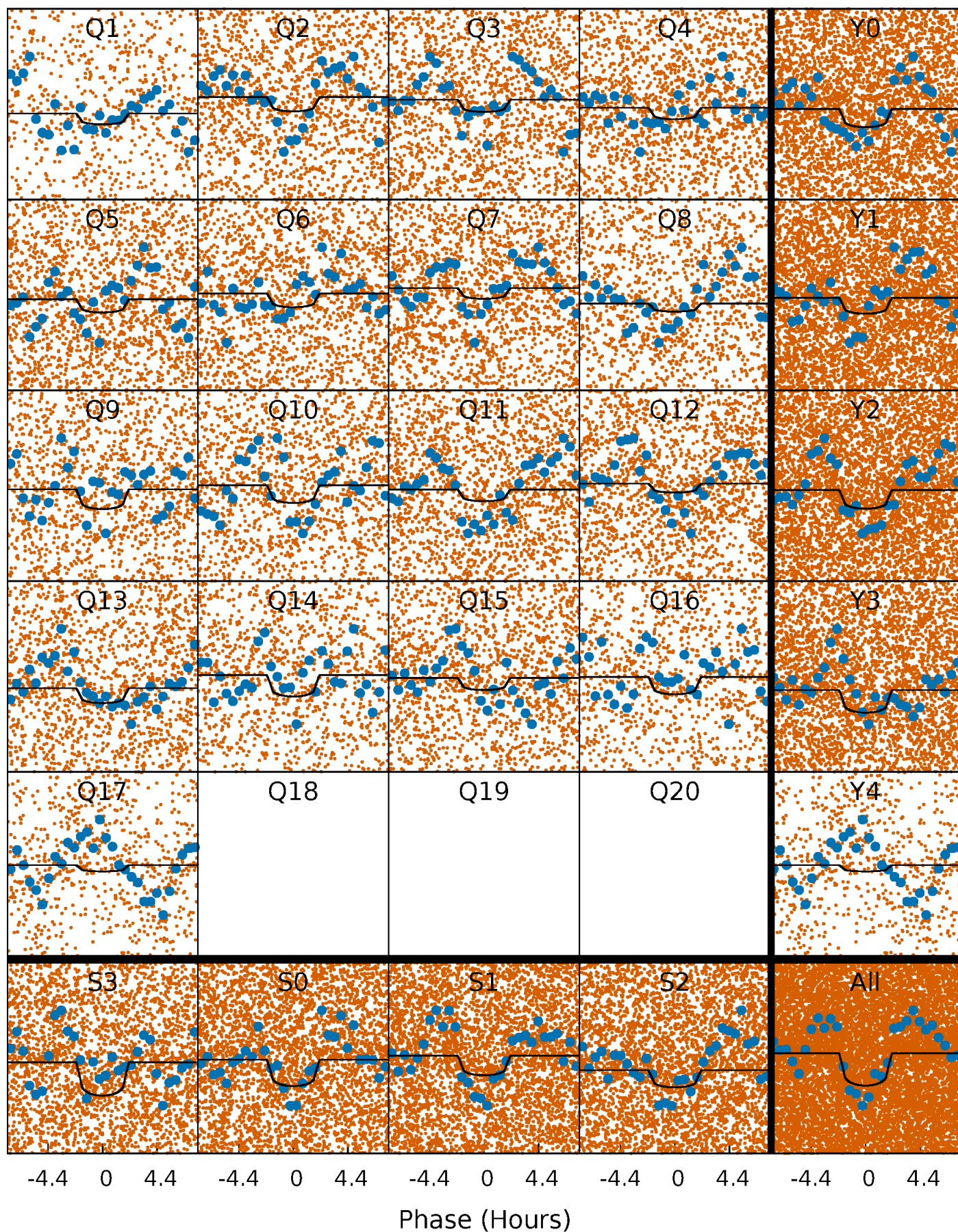
PDC Quarter-Phased Transit Curves

TCE 008981446-01 P= 0.981579 Days $T_0=131.936446$ (BKJD)



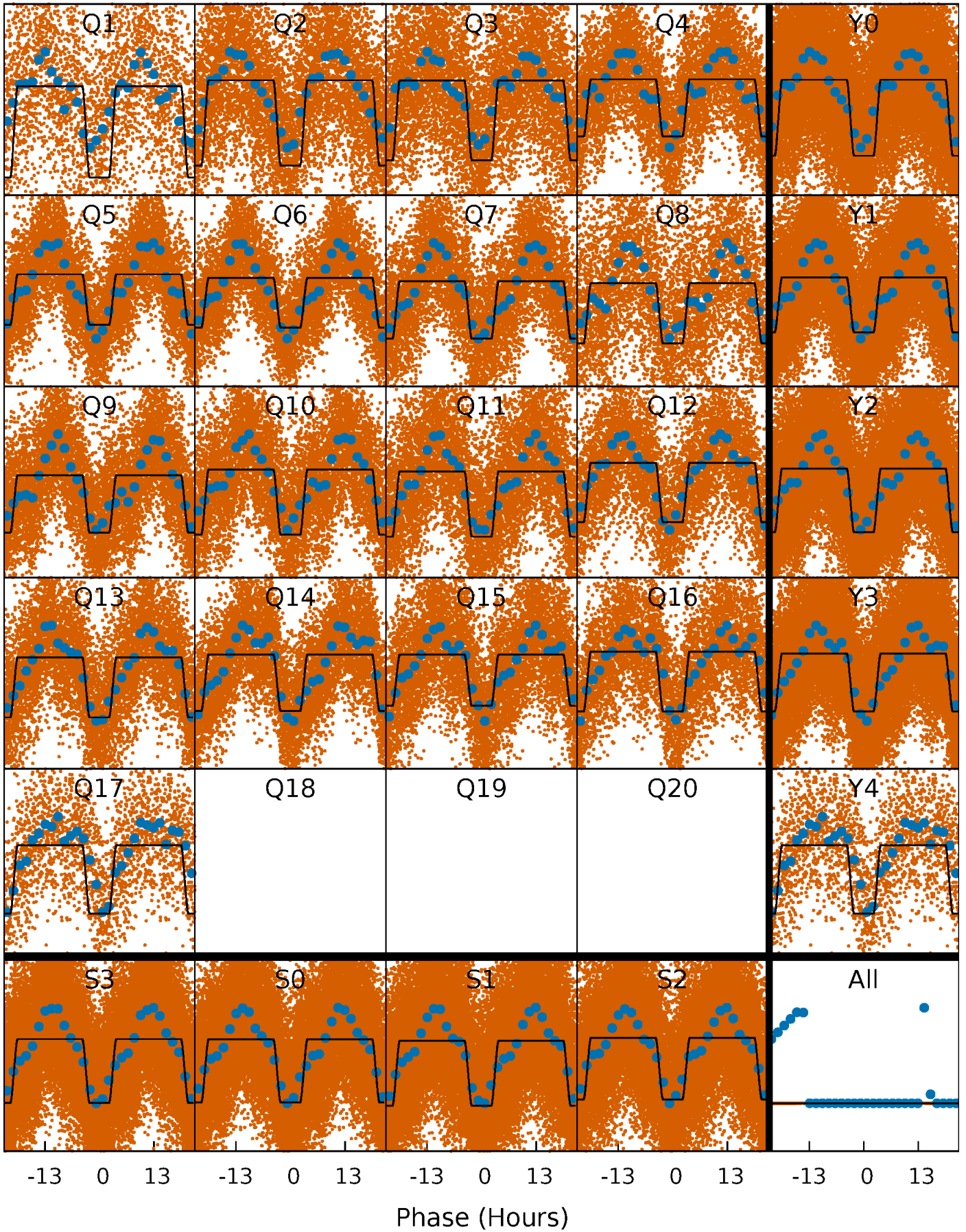
DV Quarter-Phased Transit Curves

TCE 008981446-01 P= 0.981579 Days $T_0=131.936446$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

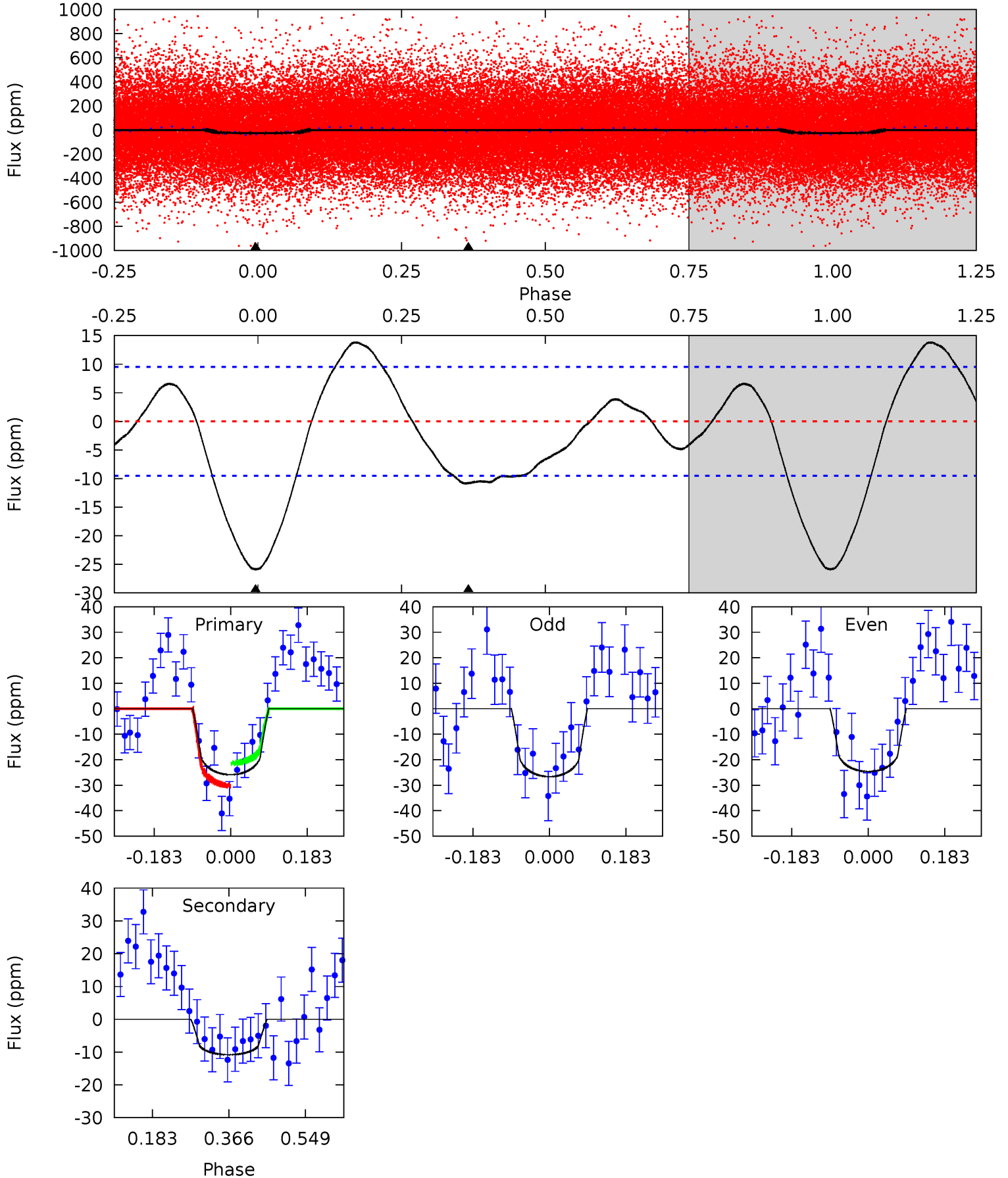
TCE 008981446-01 P= 0.981676 Days $T_0=131.910471$ (BKJD)



DV Model-Shift Uniqueness Test

008981446-01, P = 0.981579 Days, E = 130.954867 Days

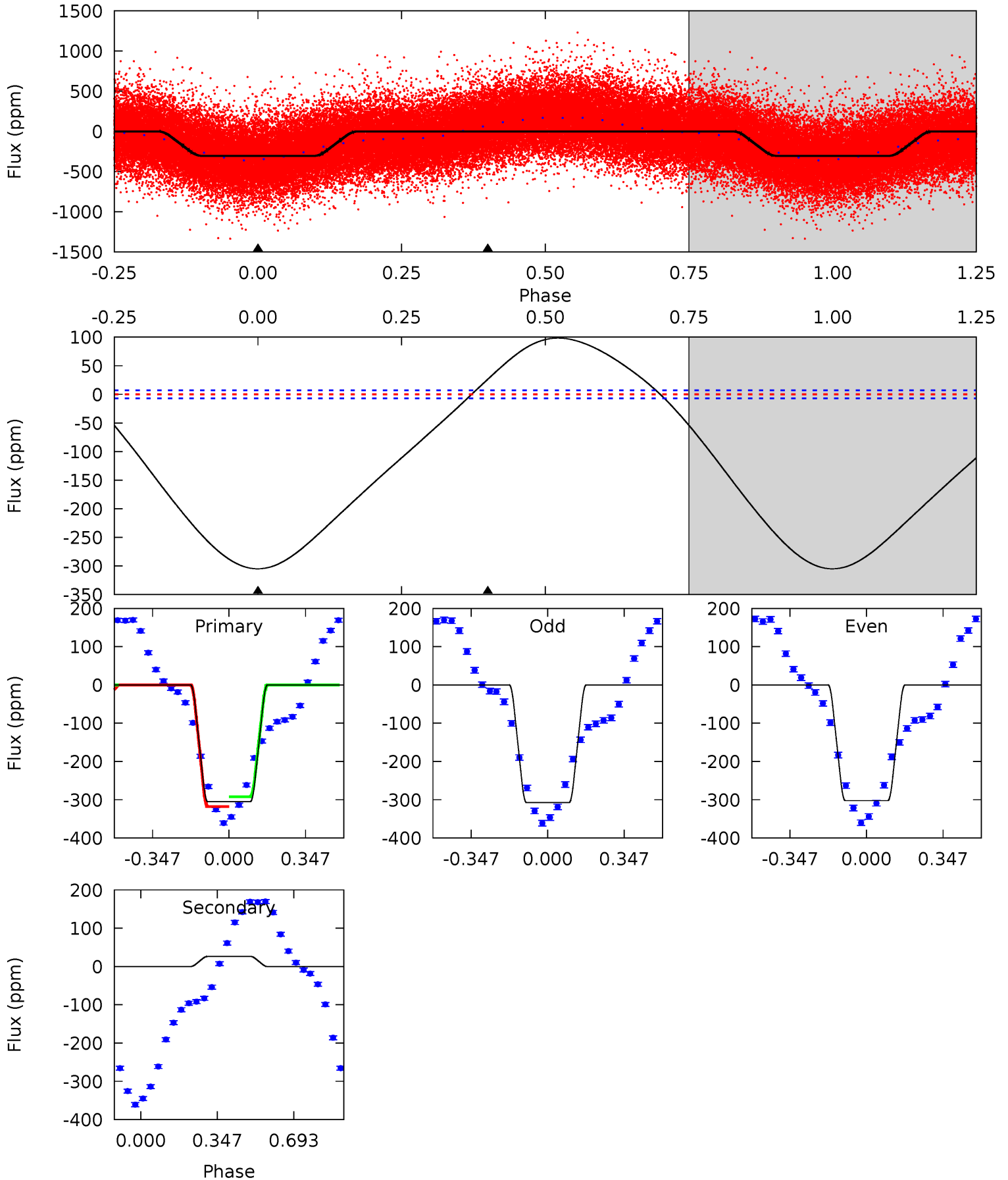
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	5.04	0	0	4.44	1.33	1.50	12.1	12.1	5.04	5.04	0.47	1.04	0.35	2.06



Alt Model-Shift Uniqueness Test

008981446-01, P = 0.981676 Days, E = 130.928795 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
190.6	-16.5	0	0	4.30	0.94	17.4	190.6	190.6	-16.5	-16.5	1.57	1.01	0.24	7.91



Stellar Parameters For KIC 008981446

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6212^{+194}_{-213}	$3.858^{+0.504}_{-0.126}$	$-0.380^{+0.300}_{-0.300}$	$2.091^{+0.459}_{-0.993}$	$1.151^{+0.183}_{-0.243}$	$0.177^{+0.945}_{-0.066}$
	+3%/-3%	+13%/-3%	+79%/-79%	+22%/-47%	+16%/-21%	+533%/-37%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008981446-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 2	$0.96^{+0.60}_{-0.47}$	3788^{+289}_{-515}	5058^{+1996}_{-925}	$2.622^{+8.129}_{-1.601}$
Alt.	26 ± 2	$3.98^{+0.83}_{-1.00}$	3774^{+294}_{-462}	-4079^{+194}_{-180}	$-0.383^{+0.117}_{-0.272}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

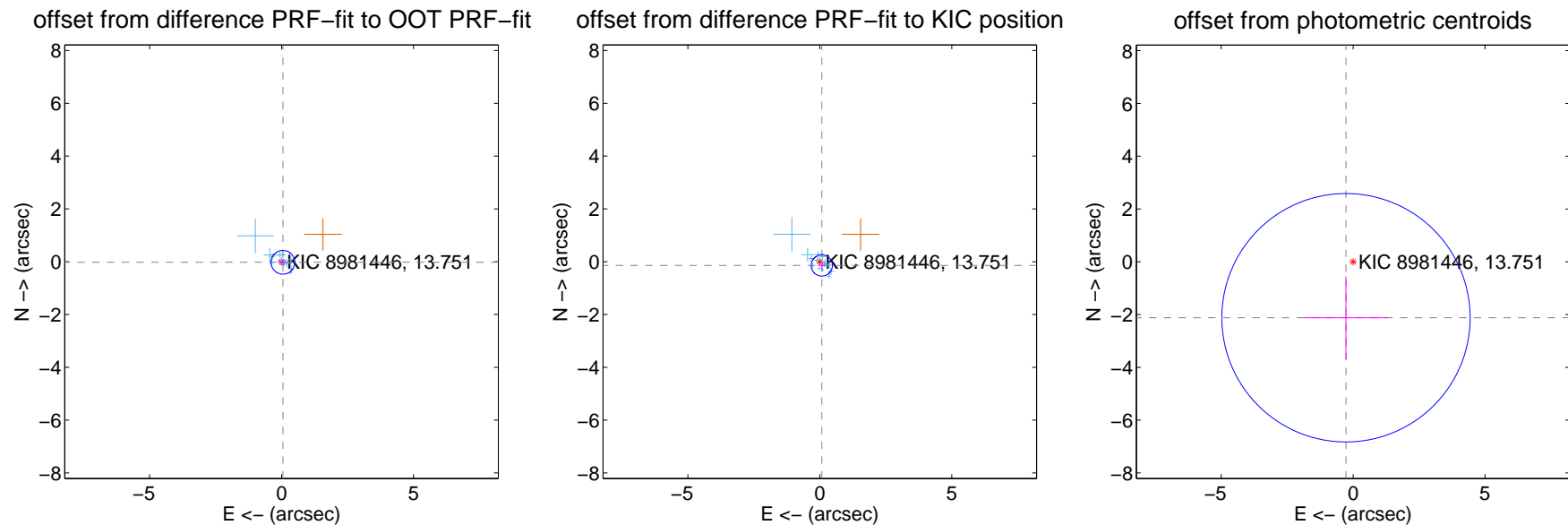
DV Centroid Data

Supplemental centroid analysis for 008981446-01. Kepler magnitude: 13.75. Transit SNR 7.28

There are 15 quarters with good PRF difference image offsets

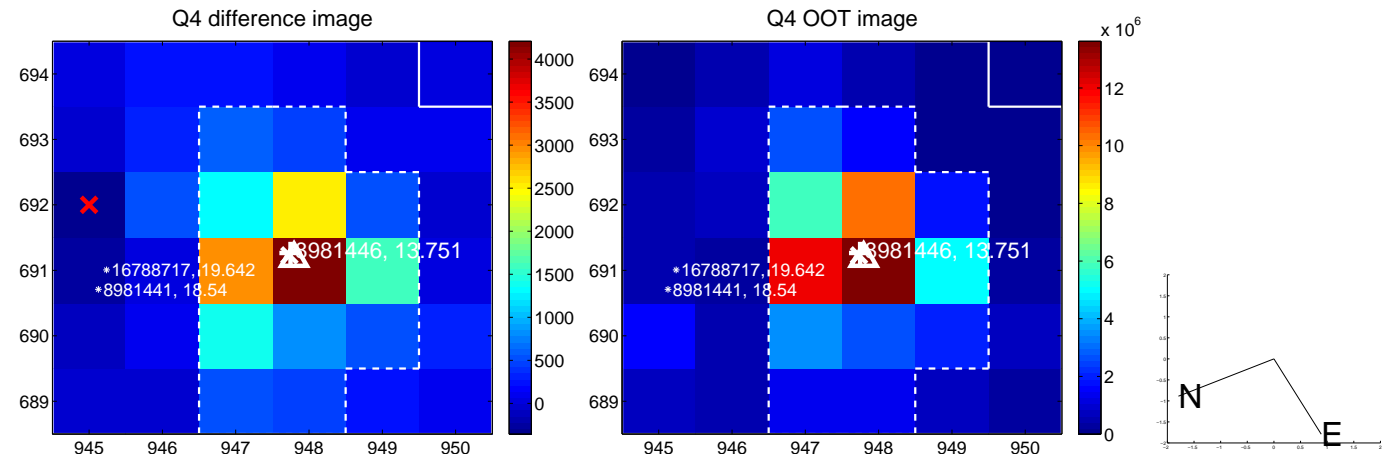
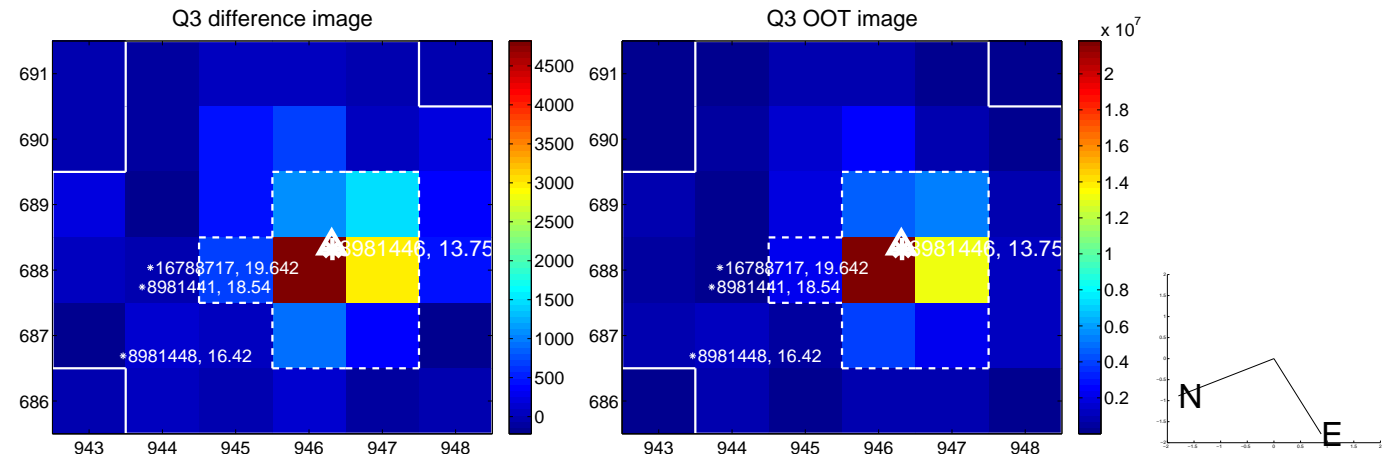
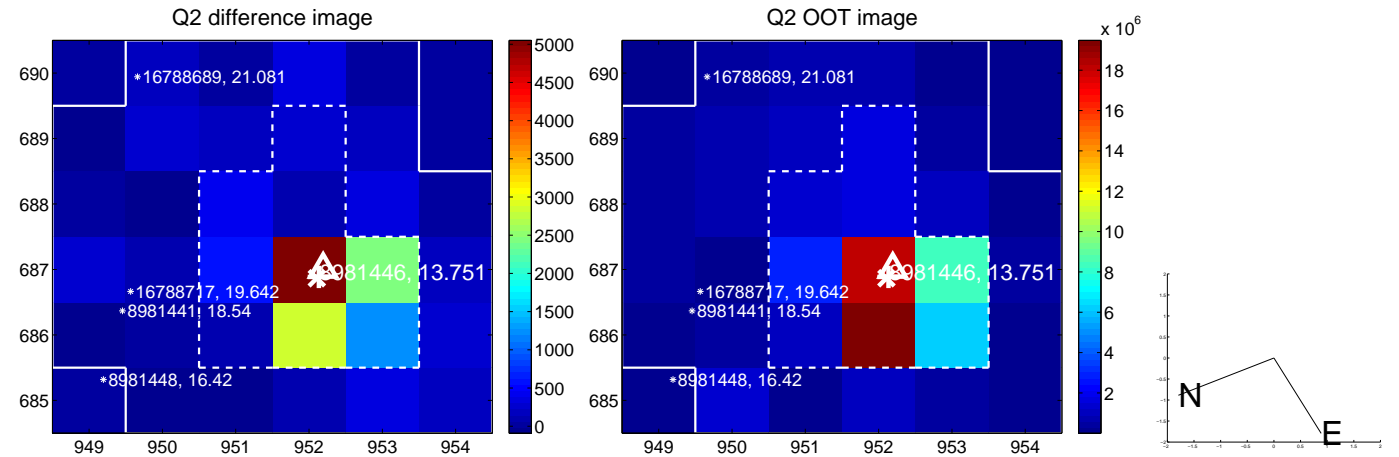
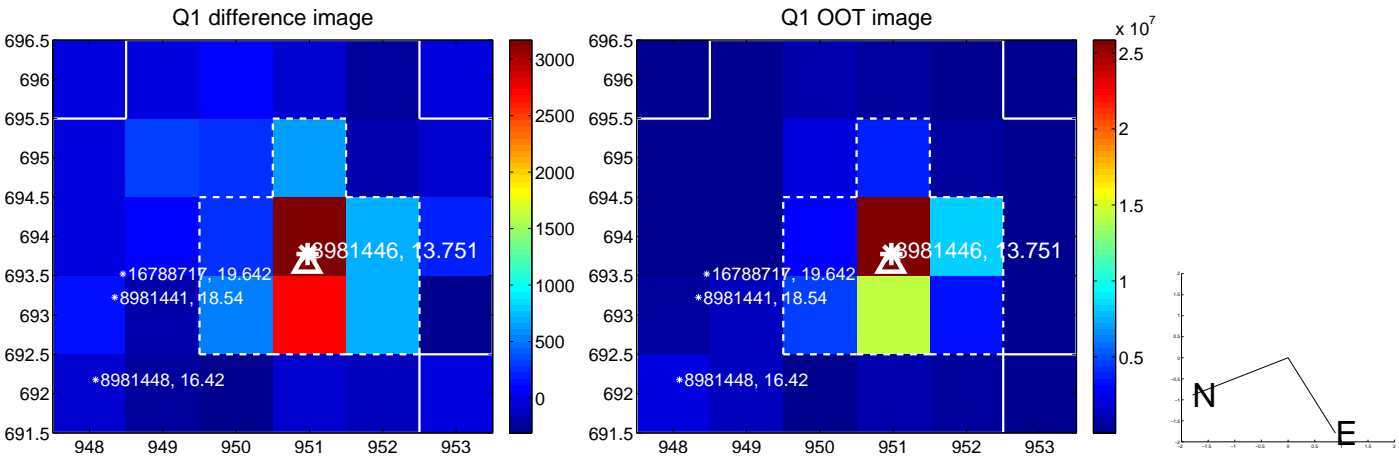
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.056 ± 0.150	0.37	-0.051 ± 0.160	-0.023 ± 0.116
PRF-fit source offset from KIC position	0.161 ± 0.134	1.20	-0.075 ± 0.154	-0.143 ± 0.125
photometric centroid source offset	2.14 ± 1.57	1.36	0.27 ± 1.59	-2.12 ± 1.57

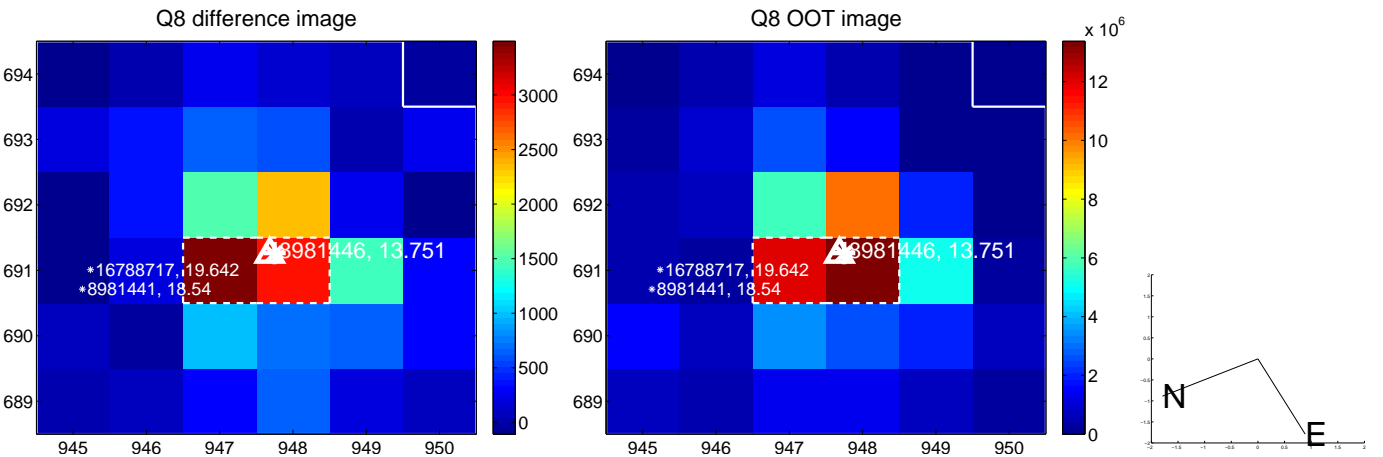
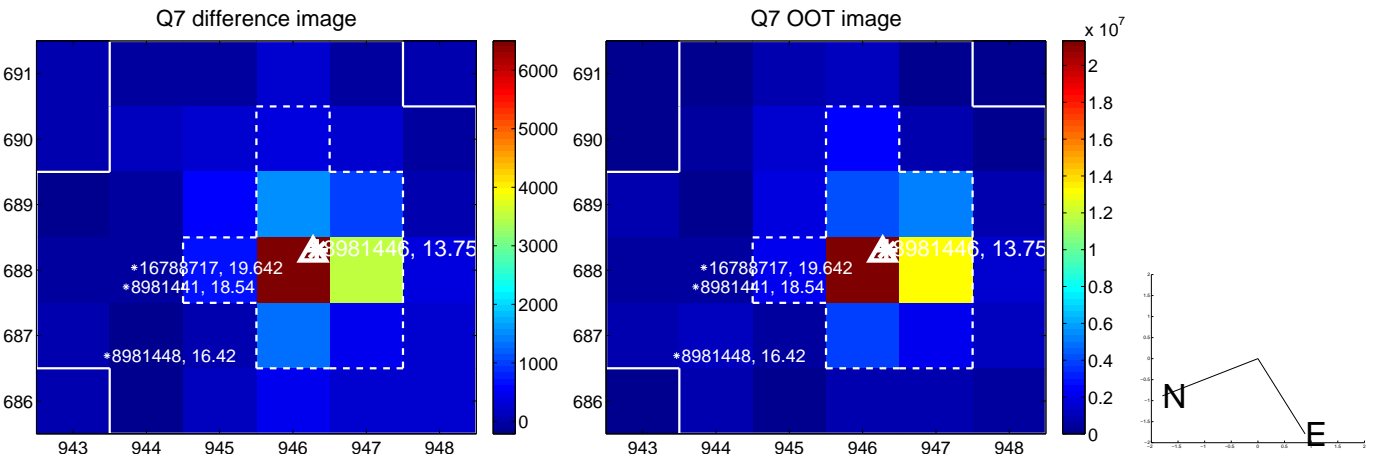
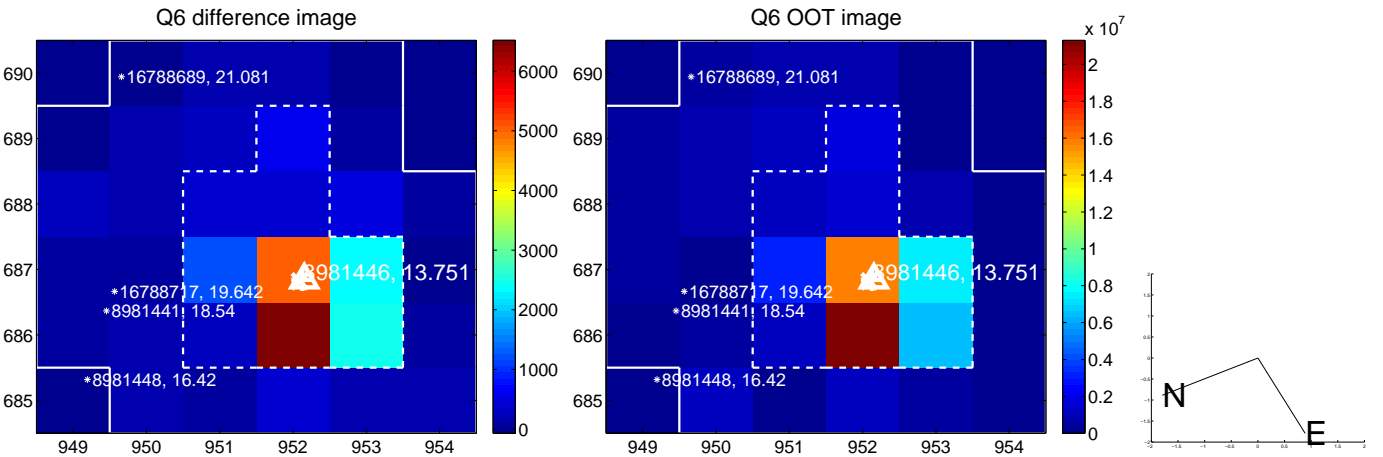
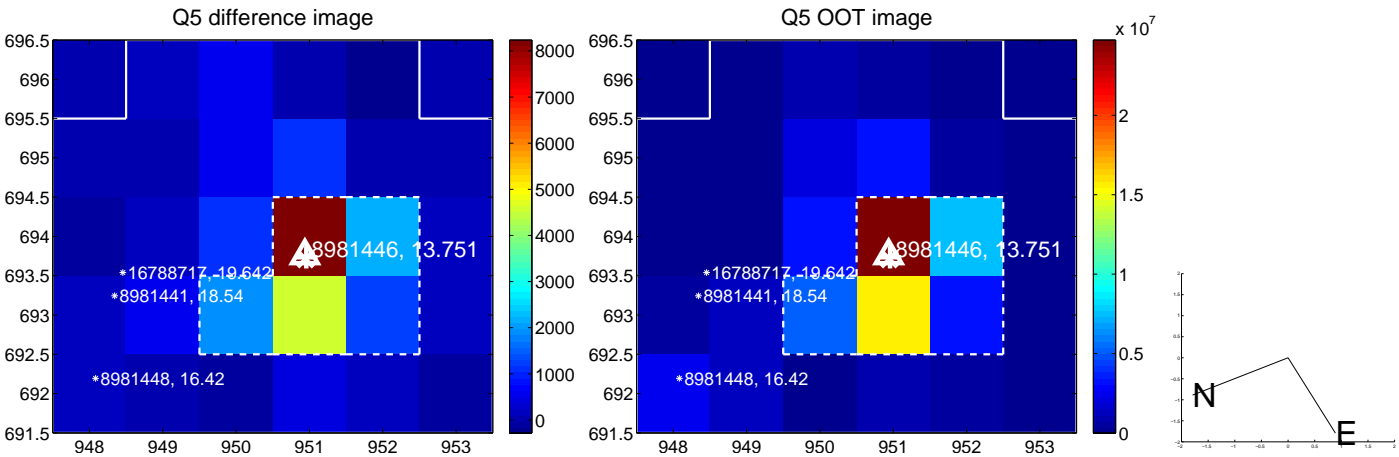


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

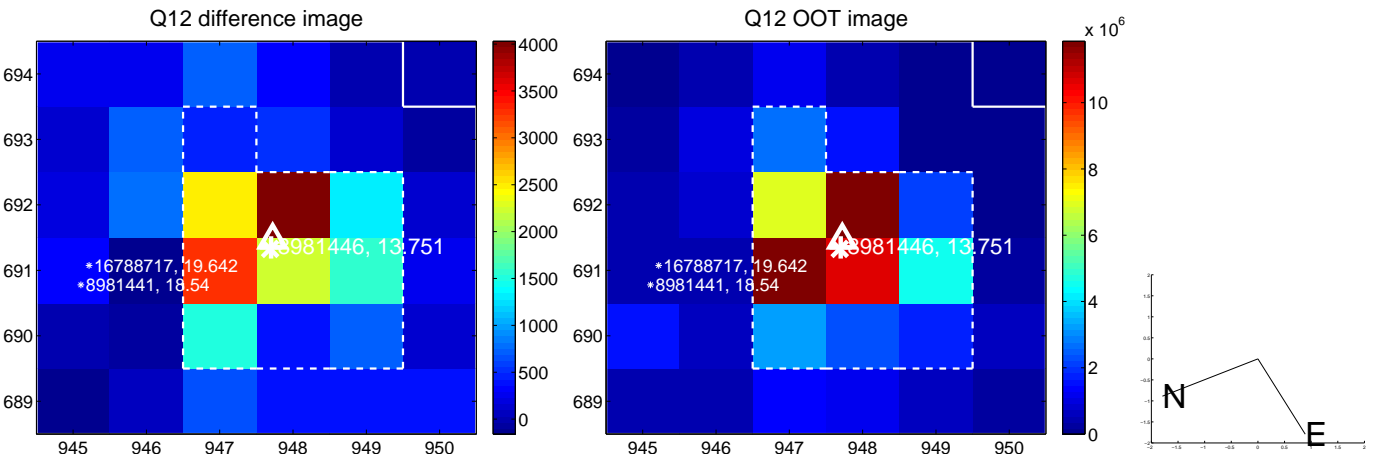
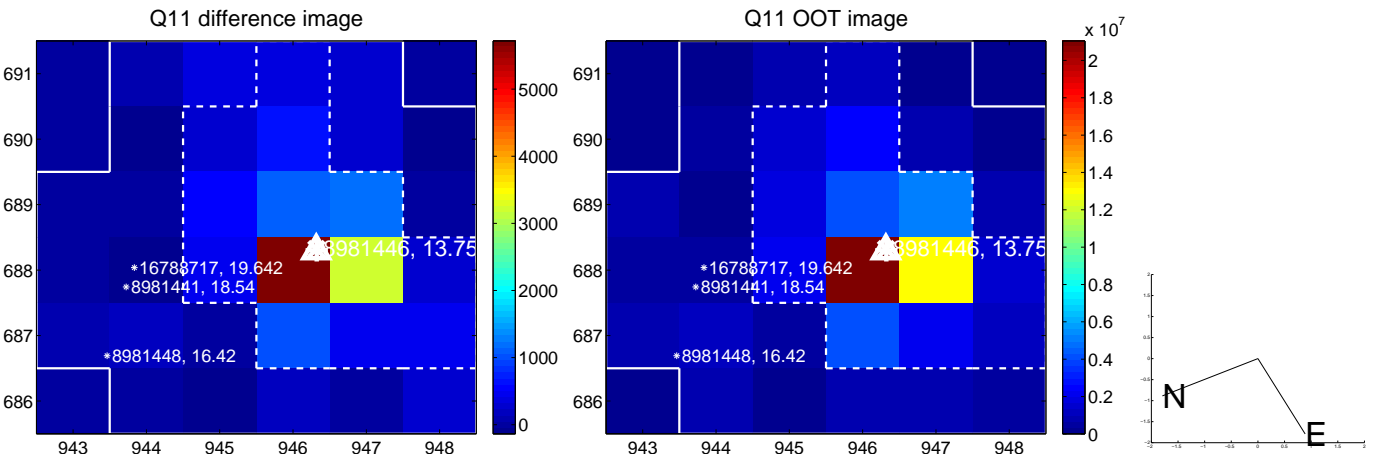
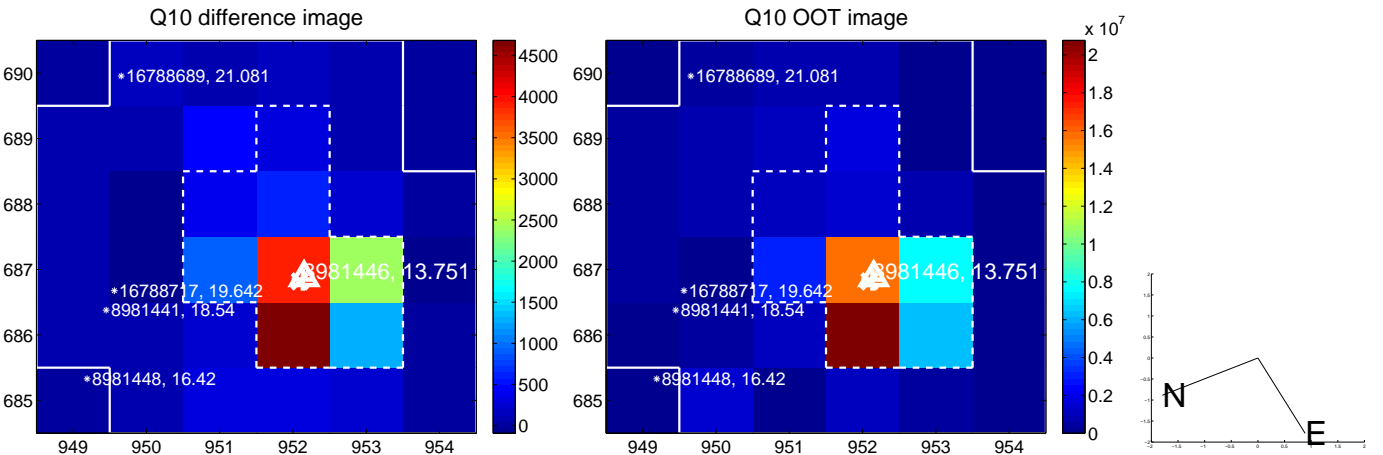
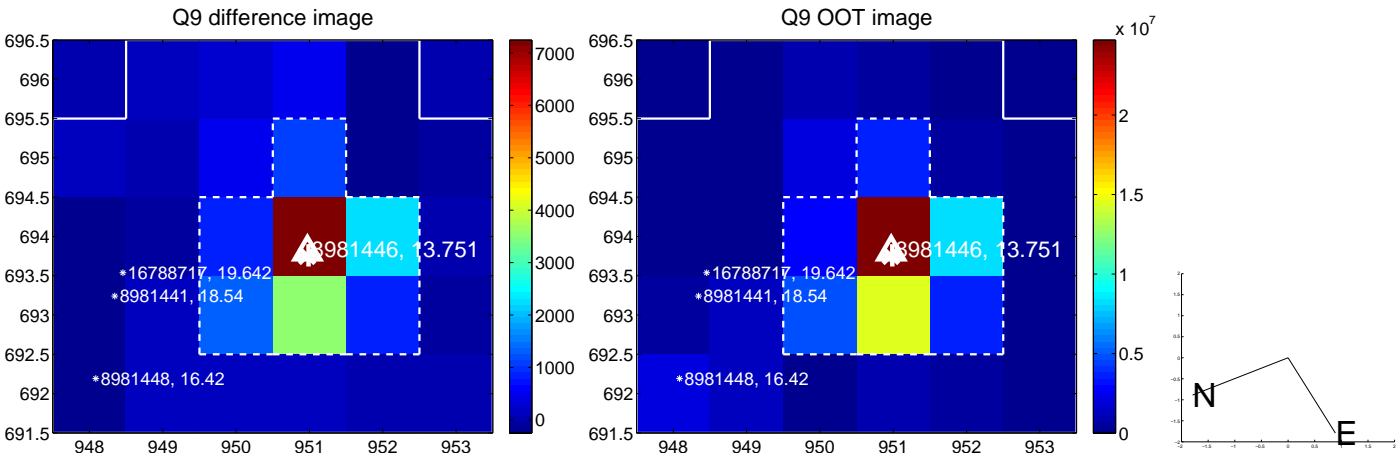
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



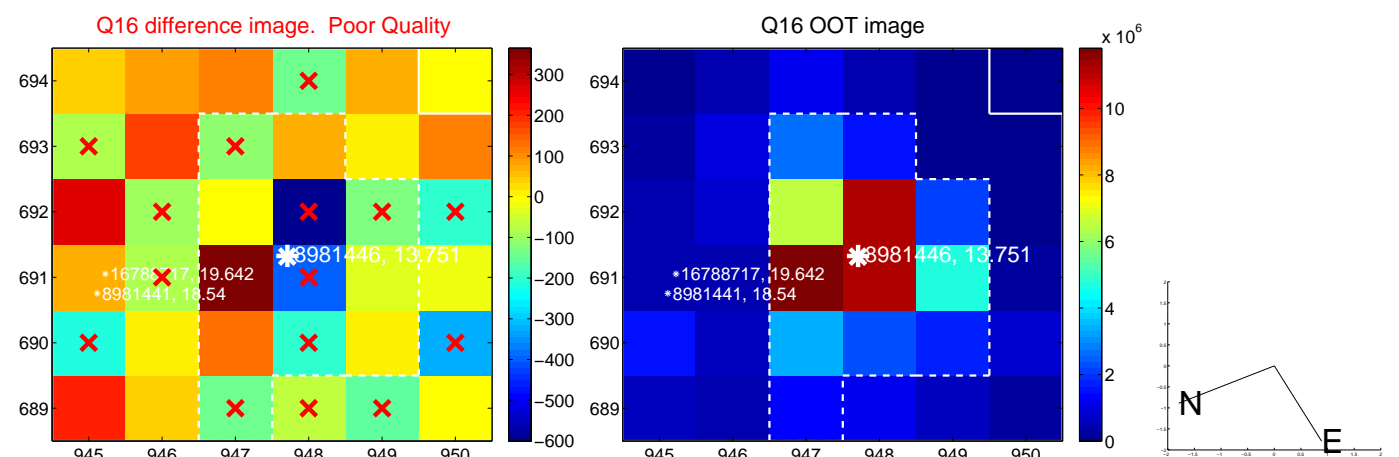
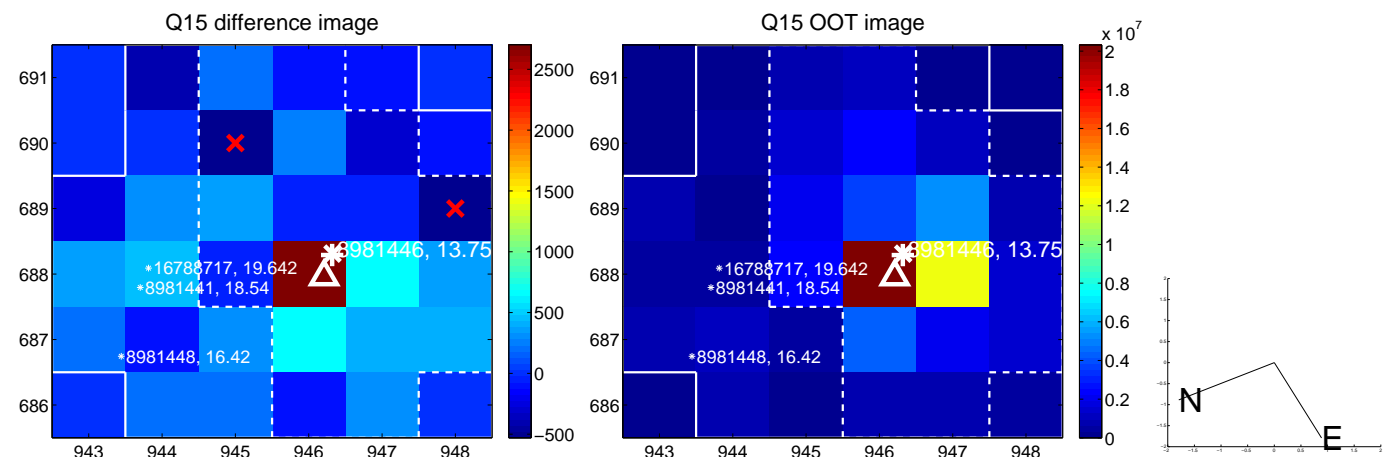
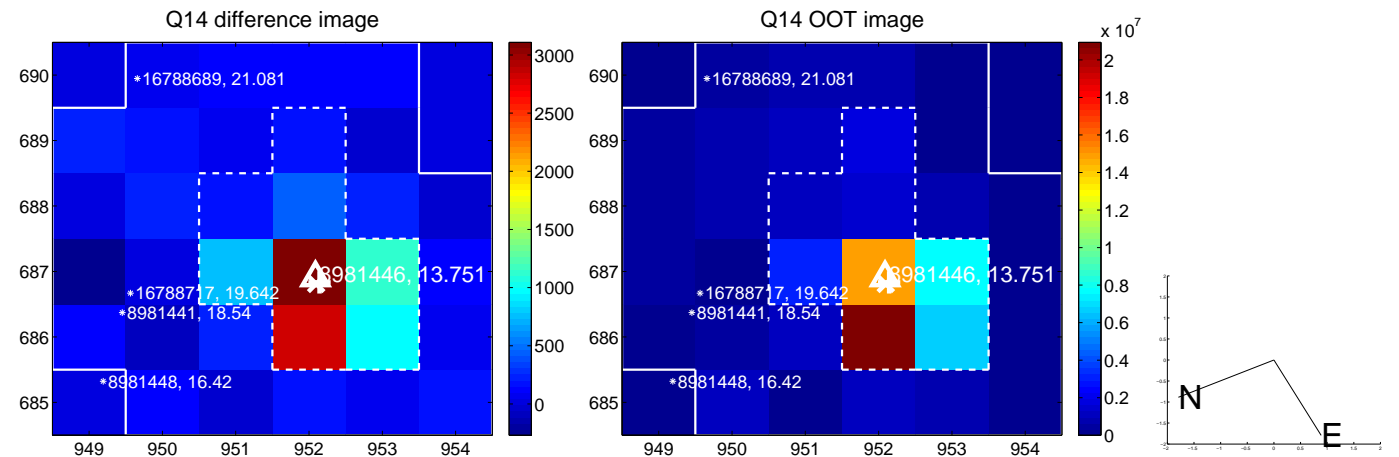
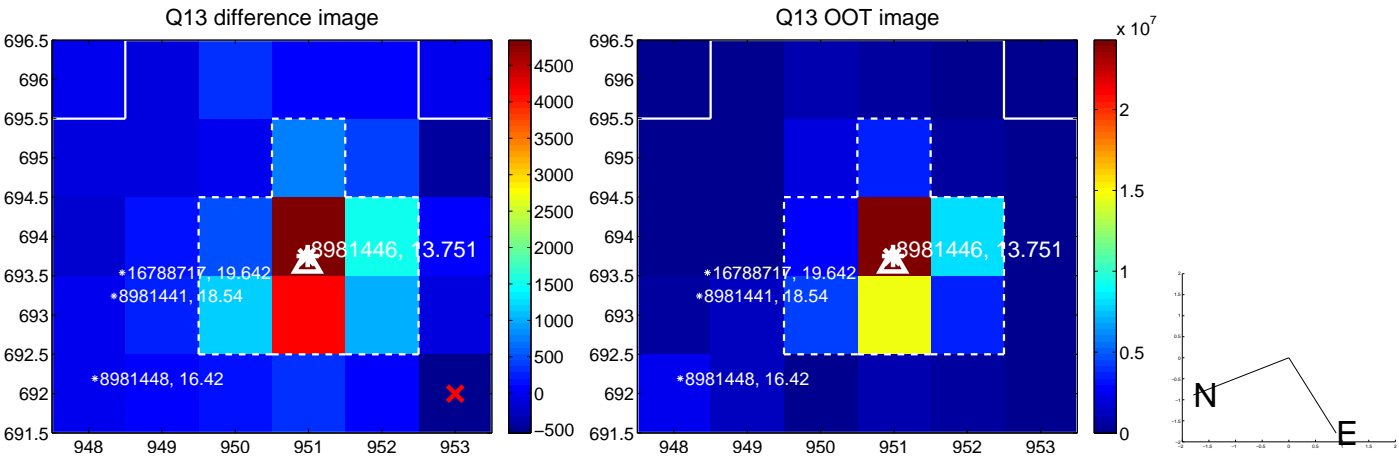
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



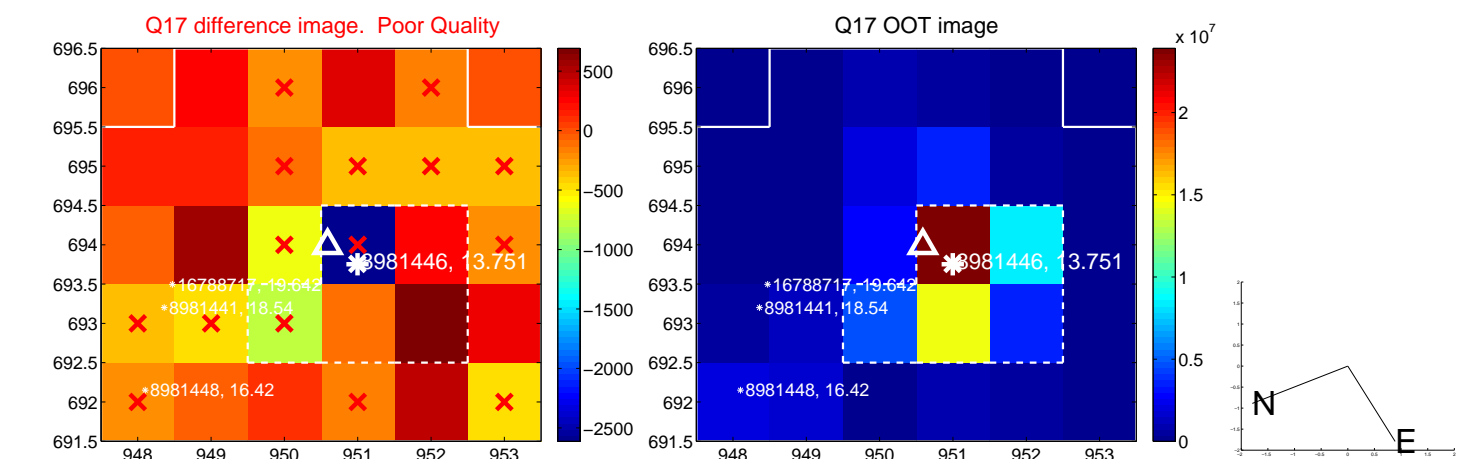
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



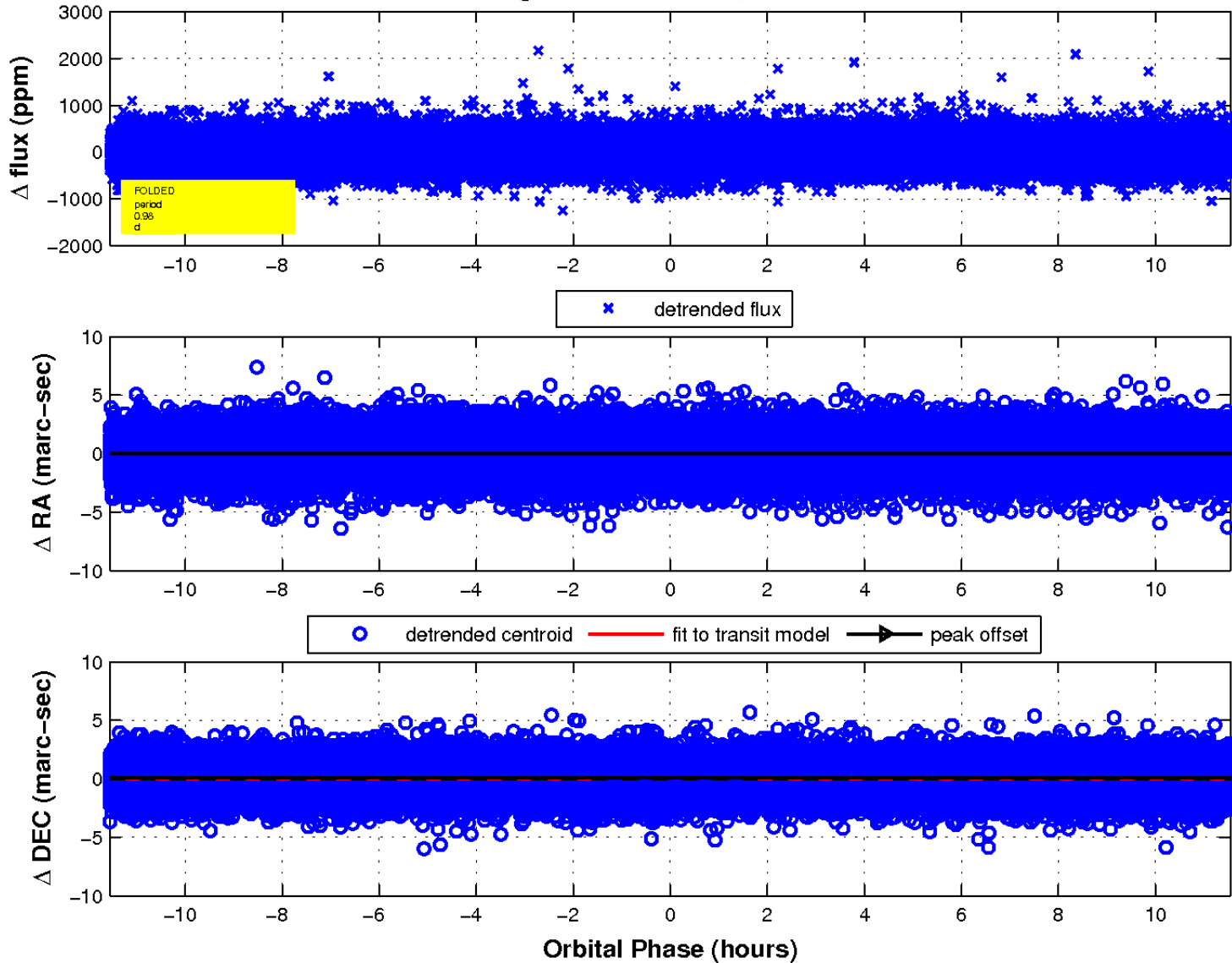
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

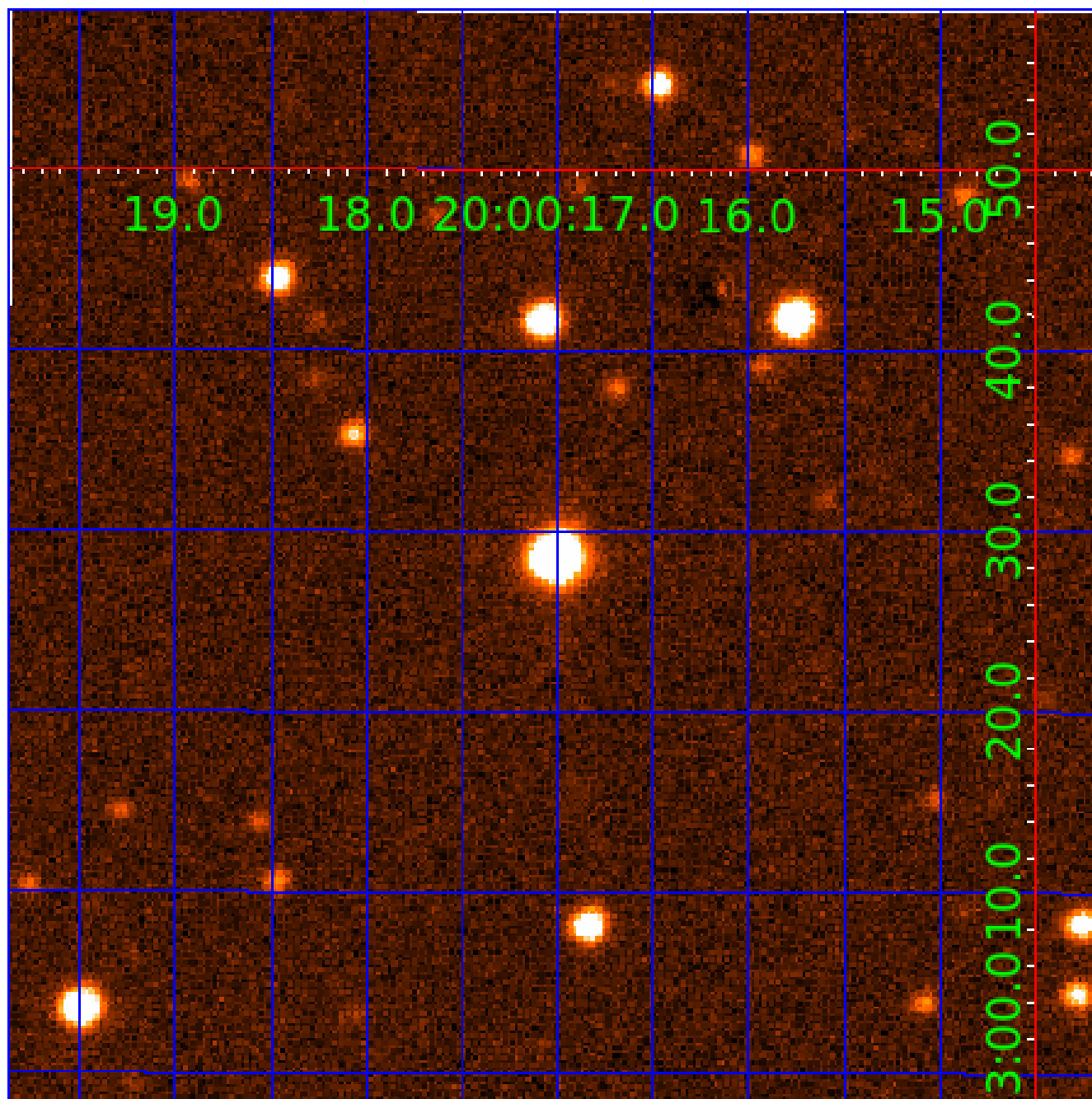


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 008981446

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008981446-01	OBS	No	0.981579	131.936446	22.2	3.850	8.4	7.3	2.09	6212	1.08	14217.48
008981446-02	OBS	No	0.981830	132.137654	28.0	4.076	8.6	9.7	2.09	6212	1.17	14212.62
008981446-03	OBS	No	41.835501	147.768747	285.0	3.345	7.2	7.1	2.09	6212	3.54	95.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008981446-01	OBS	FP	0.00	1	0	1	0	LPP_DV—HALO_GHOST
008981446-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
008981446-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

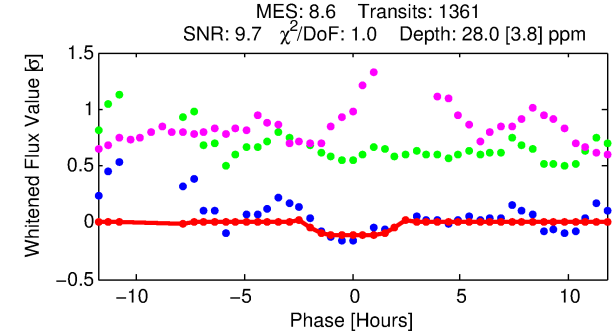
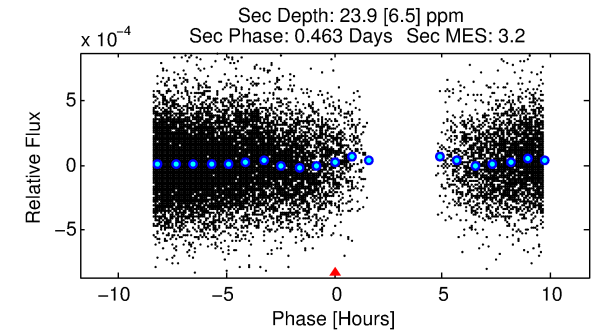
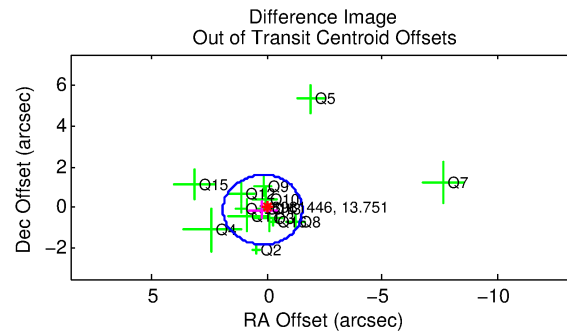
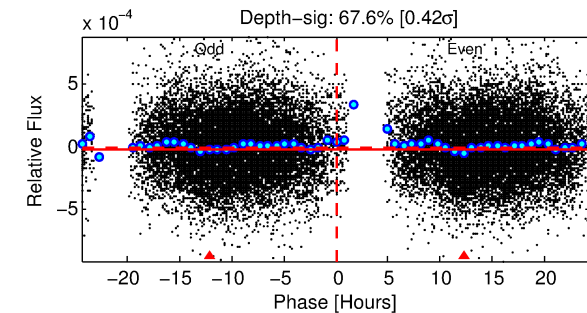
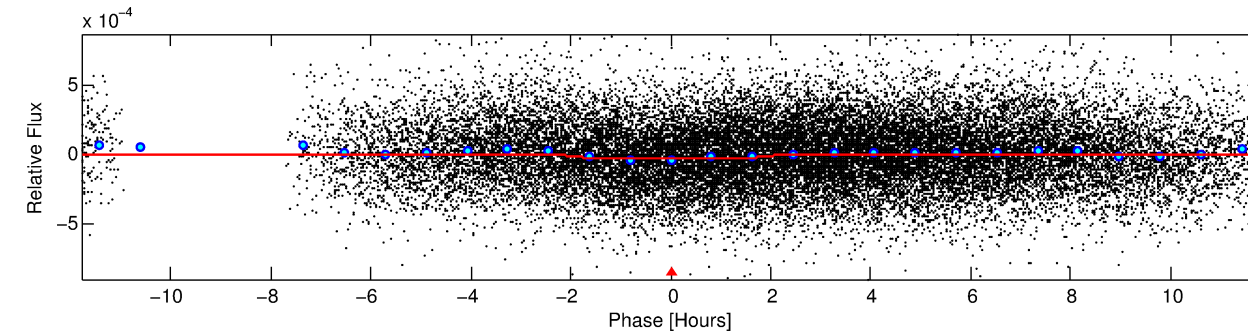
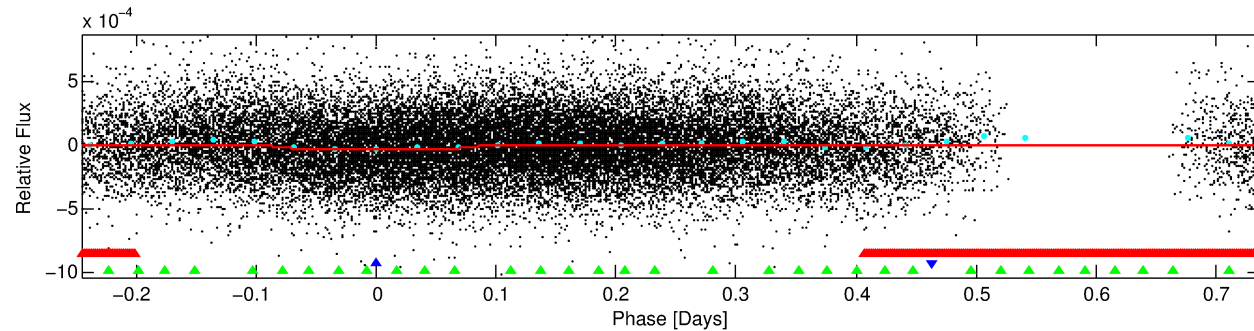
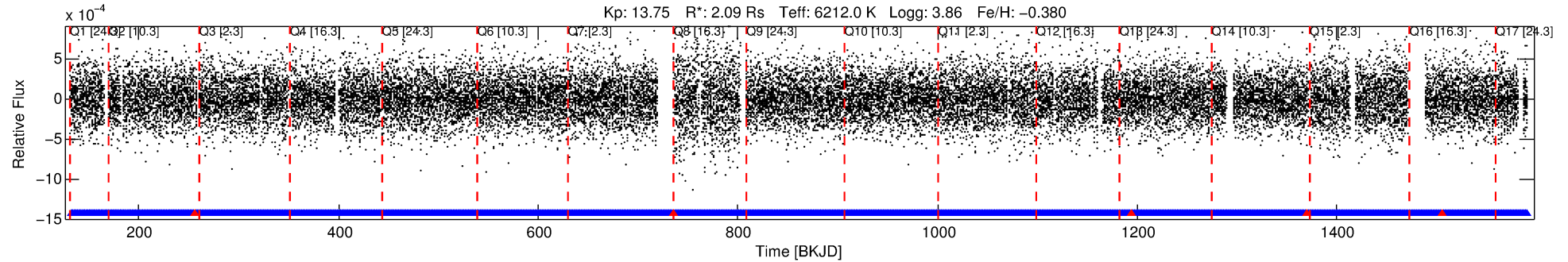
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008981446-02

No Significant Match Found

DV One-Page Summary

KIC: 8981446 Candidate: 2 of 3 Period: 0.982 d



DV Fit Results:

Period = 0.98183 [0.00001] d
Epoch = 132.1377 [0.0051] BKJD
Rp/R* = 0.0051 [0.0019]
a/R* = 1.63 [1.99]
b = 0.64 [1.81]
Seff = 14212.62 [12039.75]
Teff = 2784 [590] K
Rp = 1.17 [0.71] Re
a = 0.0203 [0.0101] AU
Ag = 3.95 [4.59] [0.64 σ]
Teffp = 6069 [1240] K [2.39 σ]

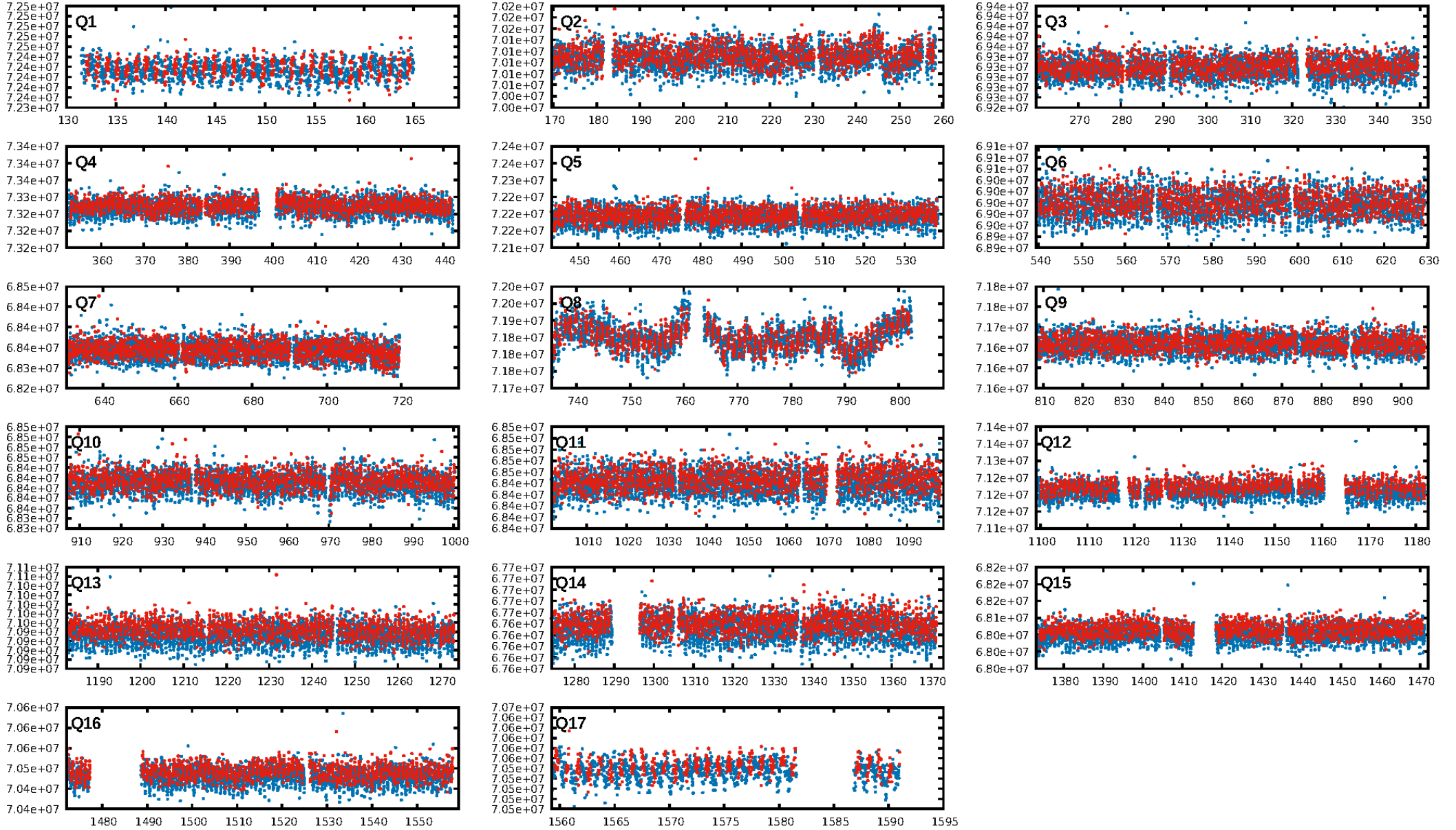
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00 σ]
LongPeriod-sig: 100.0% [185.95 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 7.83e-21
RollingBand-fgt: 1.00 [1295/1300]
GhostDiagnostic-chr: 0.481
Centroid-sig: 10.0%
Centroid-so: 1.149 arcsec [0.95 σ]
OotOffset-rm: 0.209 arcsec [0.37 σ]
KicOffset-rm: 0.258 arcsec [0.43 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 0.24 [4/17]

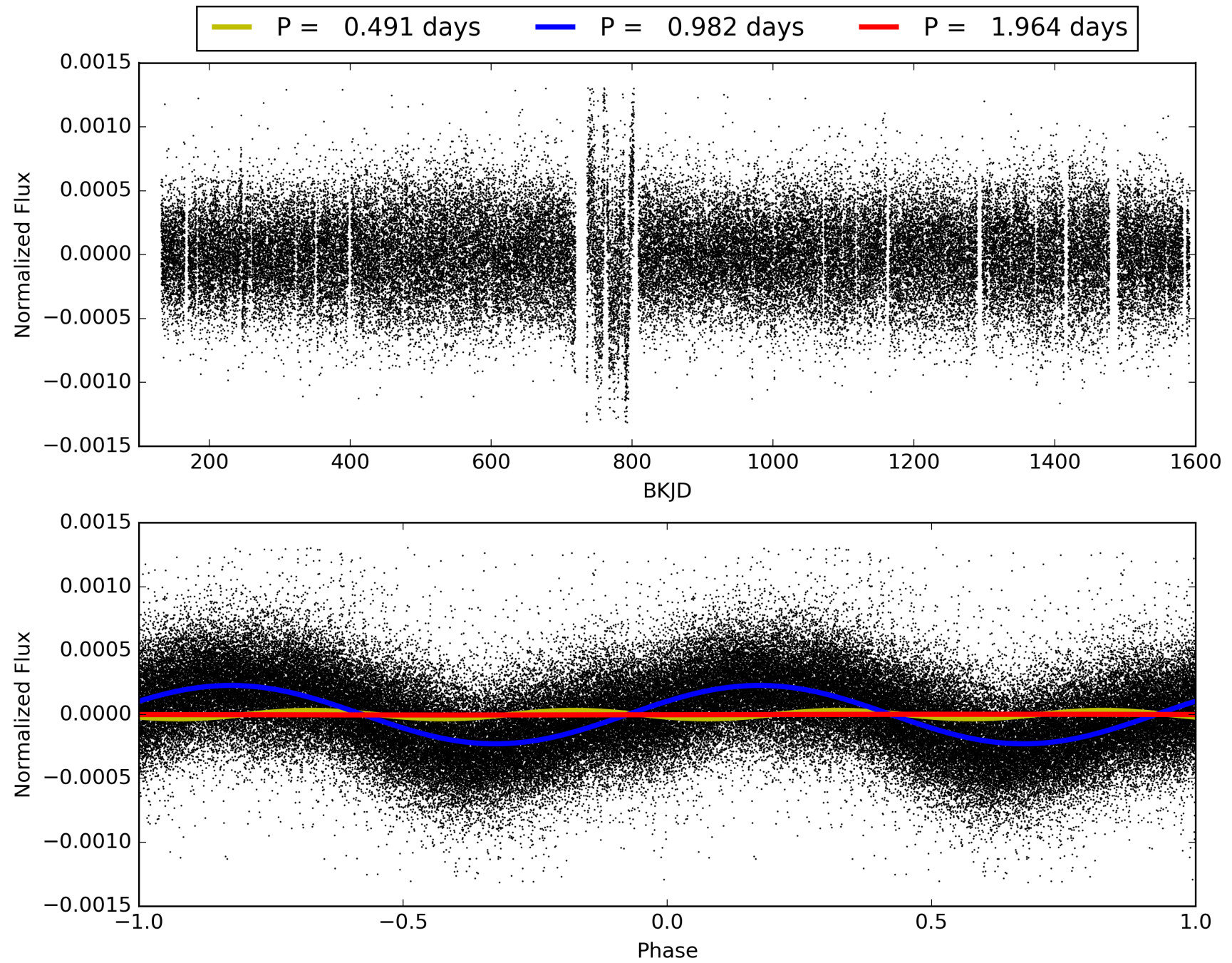
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:35:14 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008981446-02, PDC Light Curves

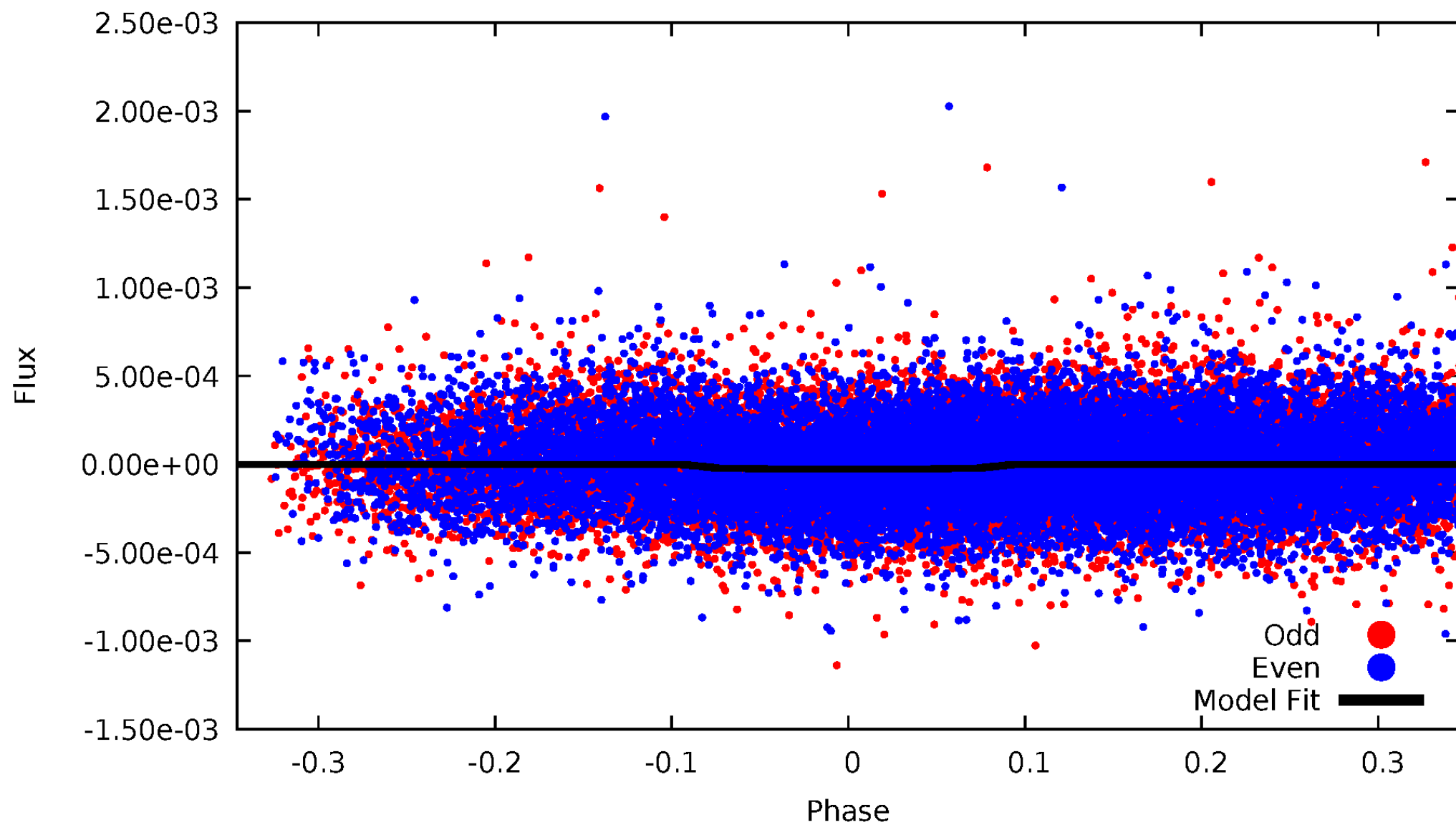


TCE 008981446-02



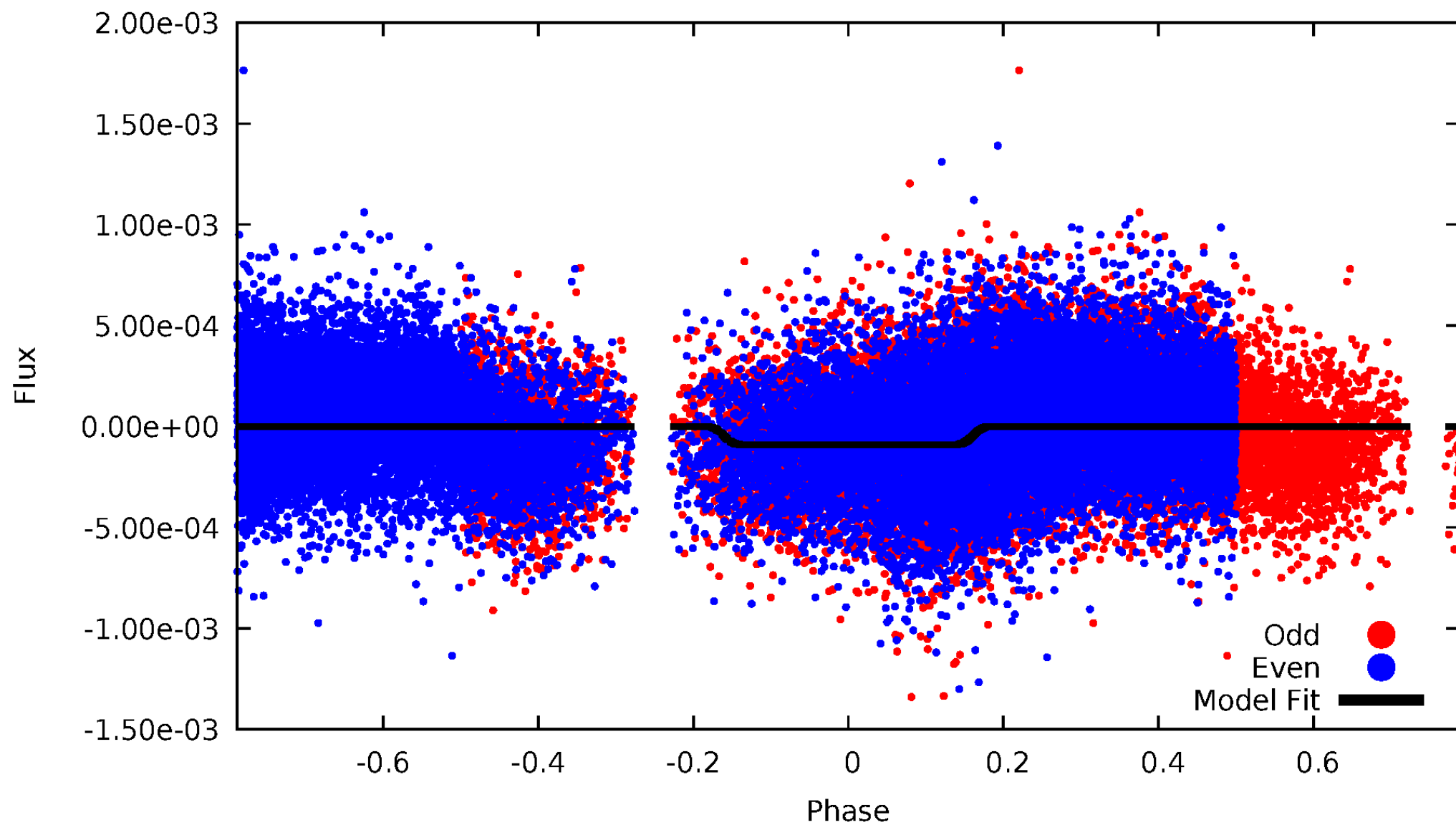
DV Odd/Even

TCE 008981446-02



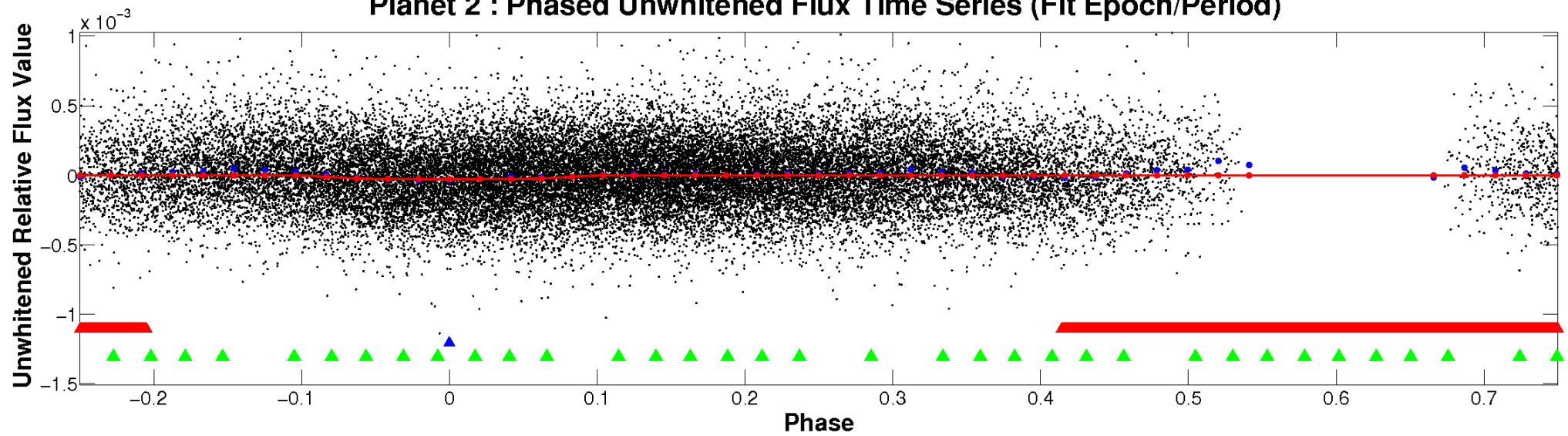
ALT Odd/Even

TCE 008981446-02

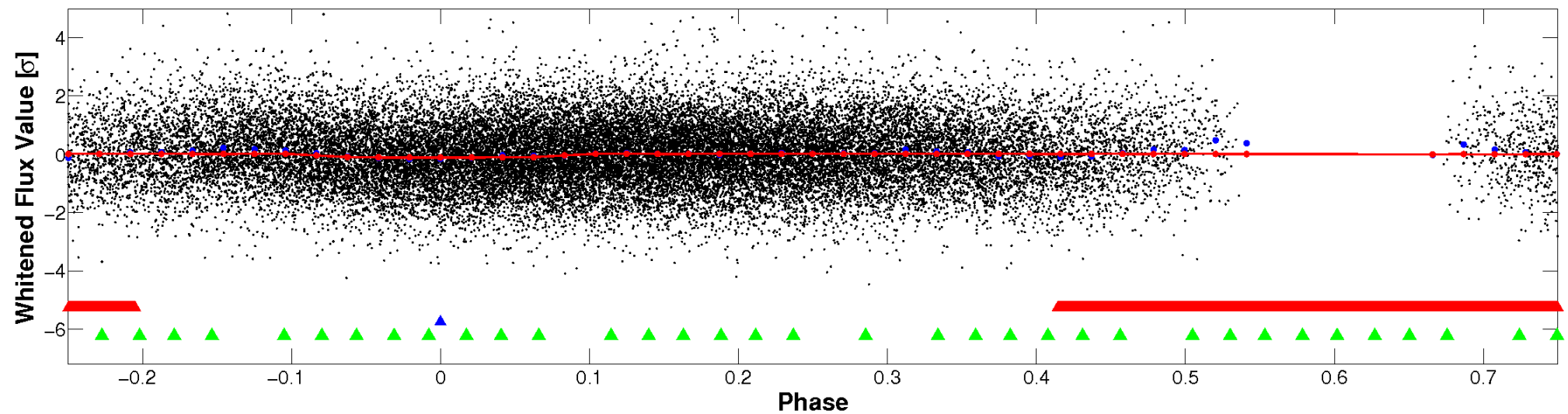


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

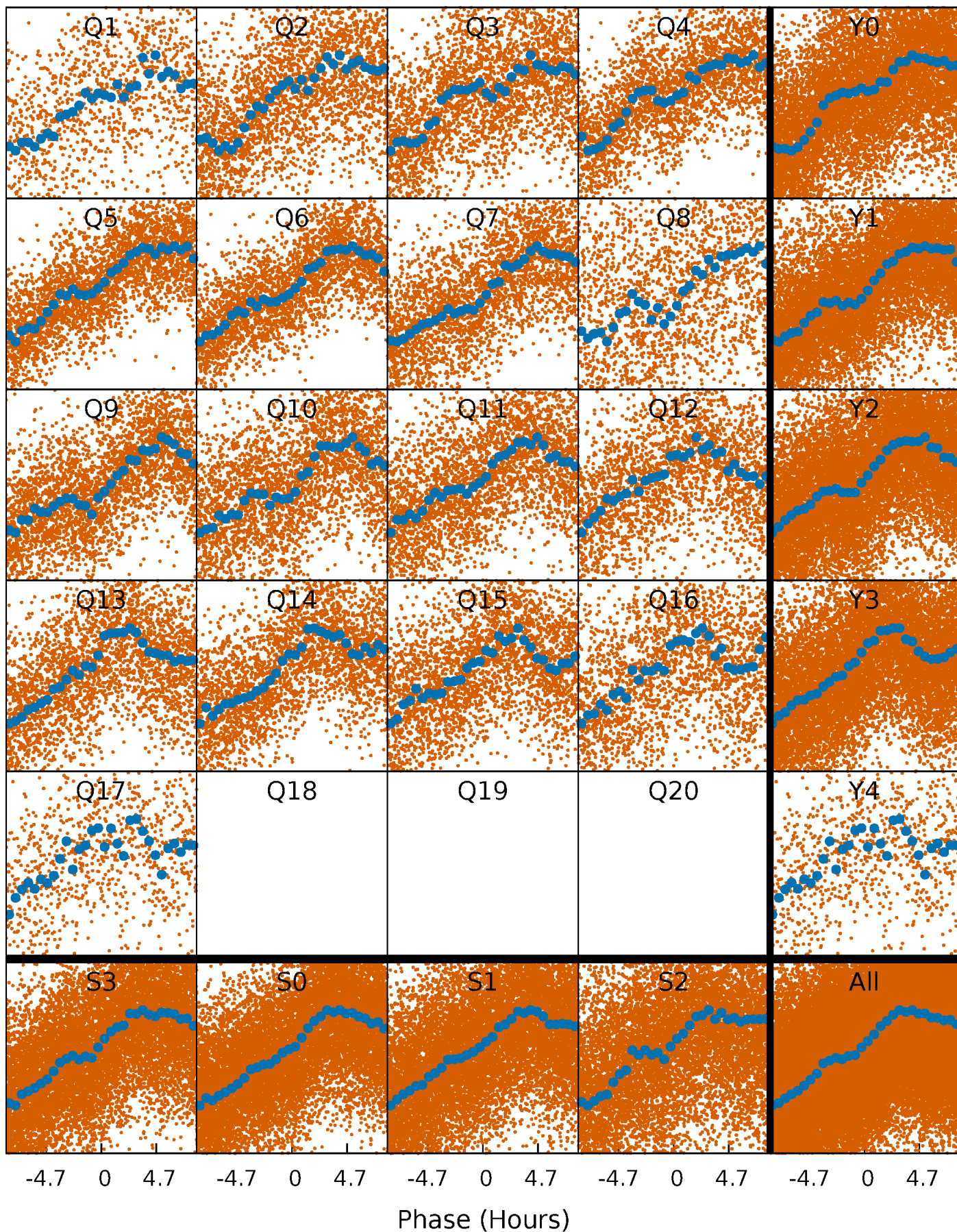


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



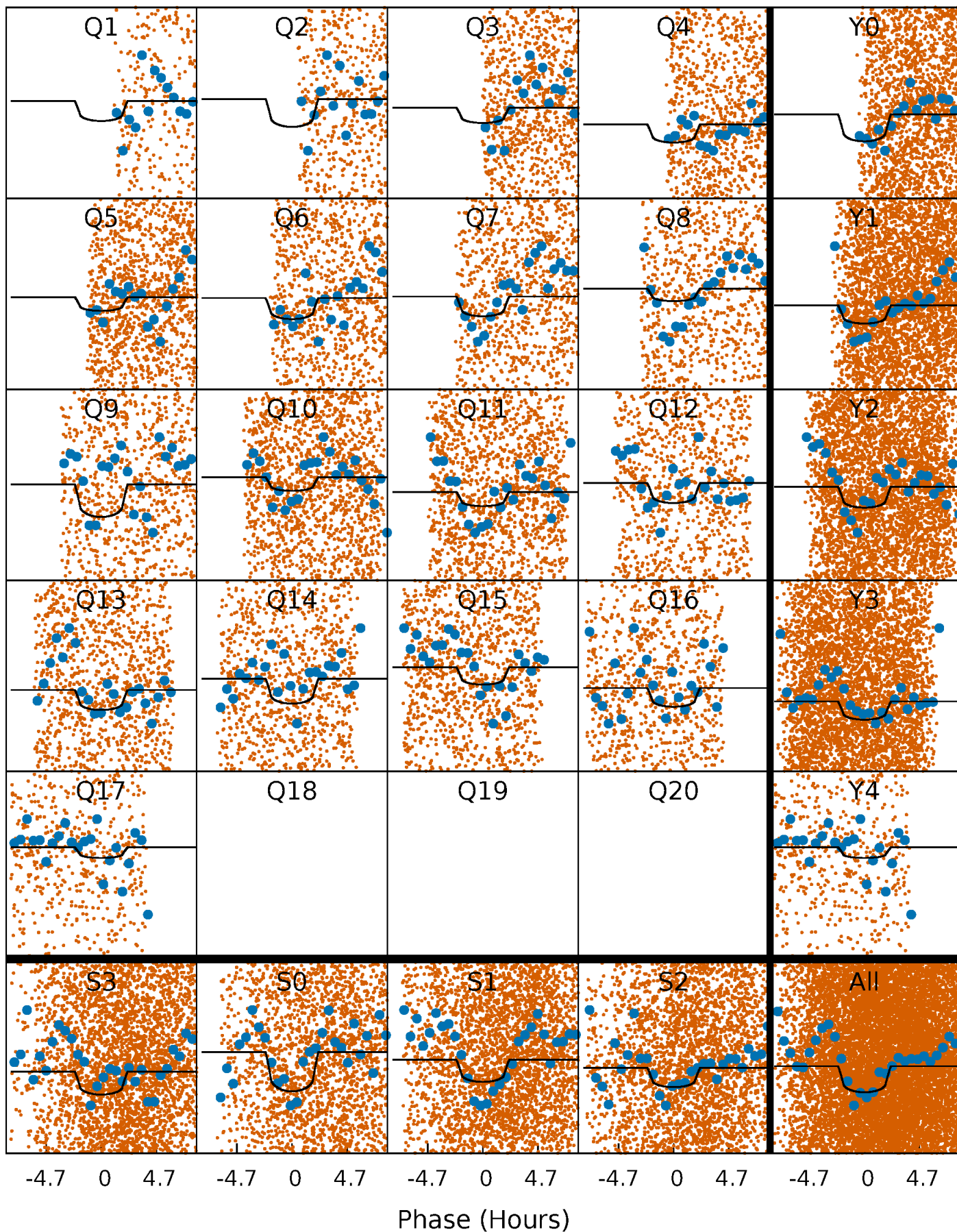
PDC Quarter-Phased Transit Curves

TCE 008981446-02 P= 0.981830 Days $T_0=132.137653$ (BKJD)



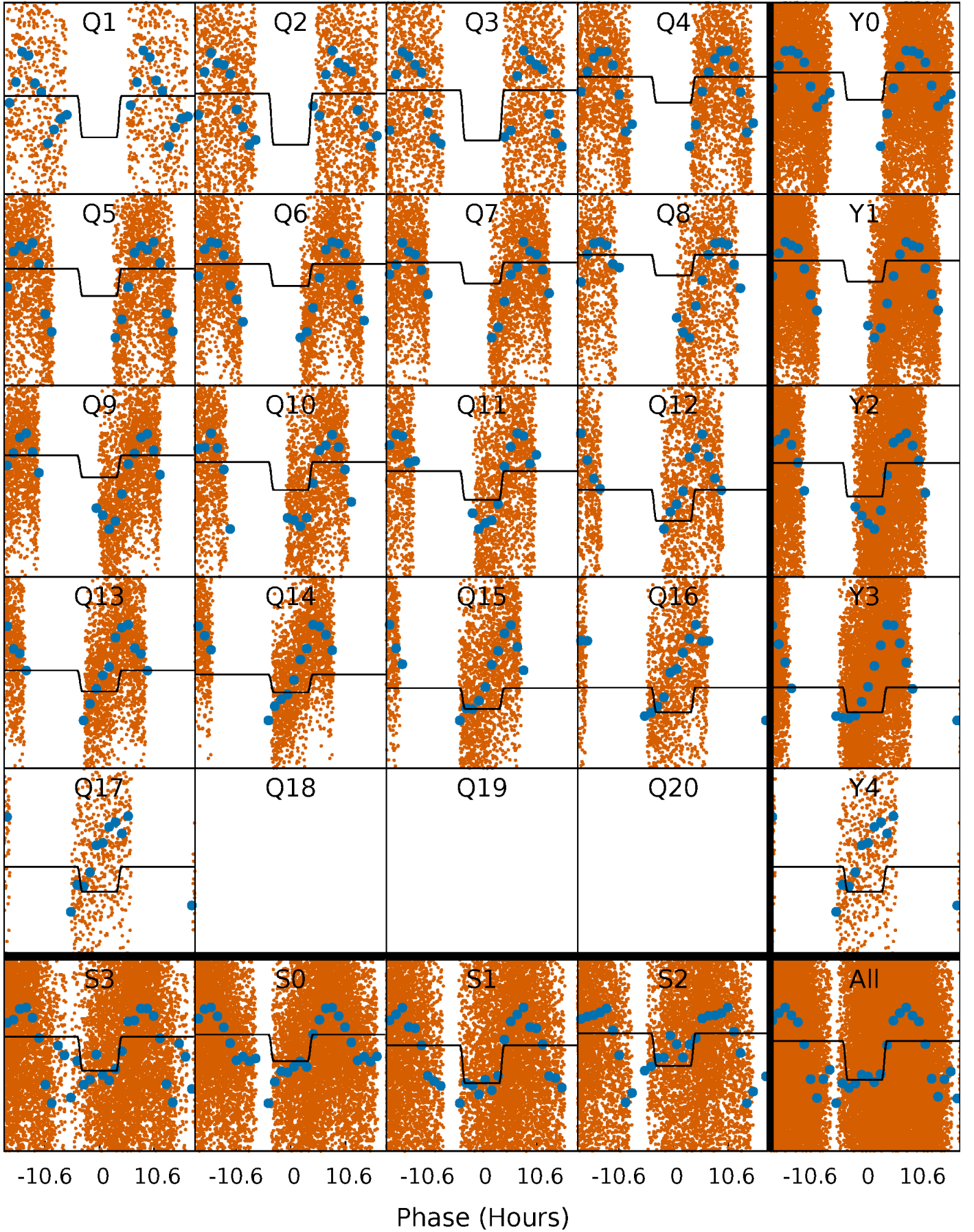
DV Quarter-Phased Transit Curves

TCE 008981446-02 P= 0.981830 Days $T_0=132.137653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

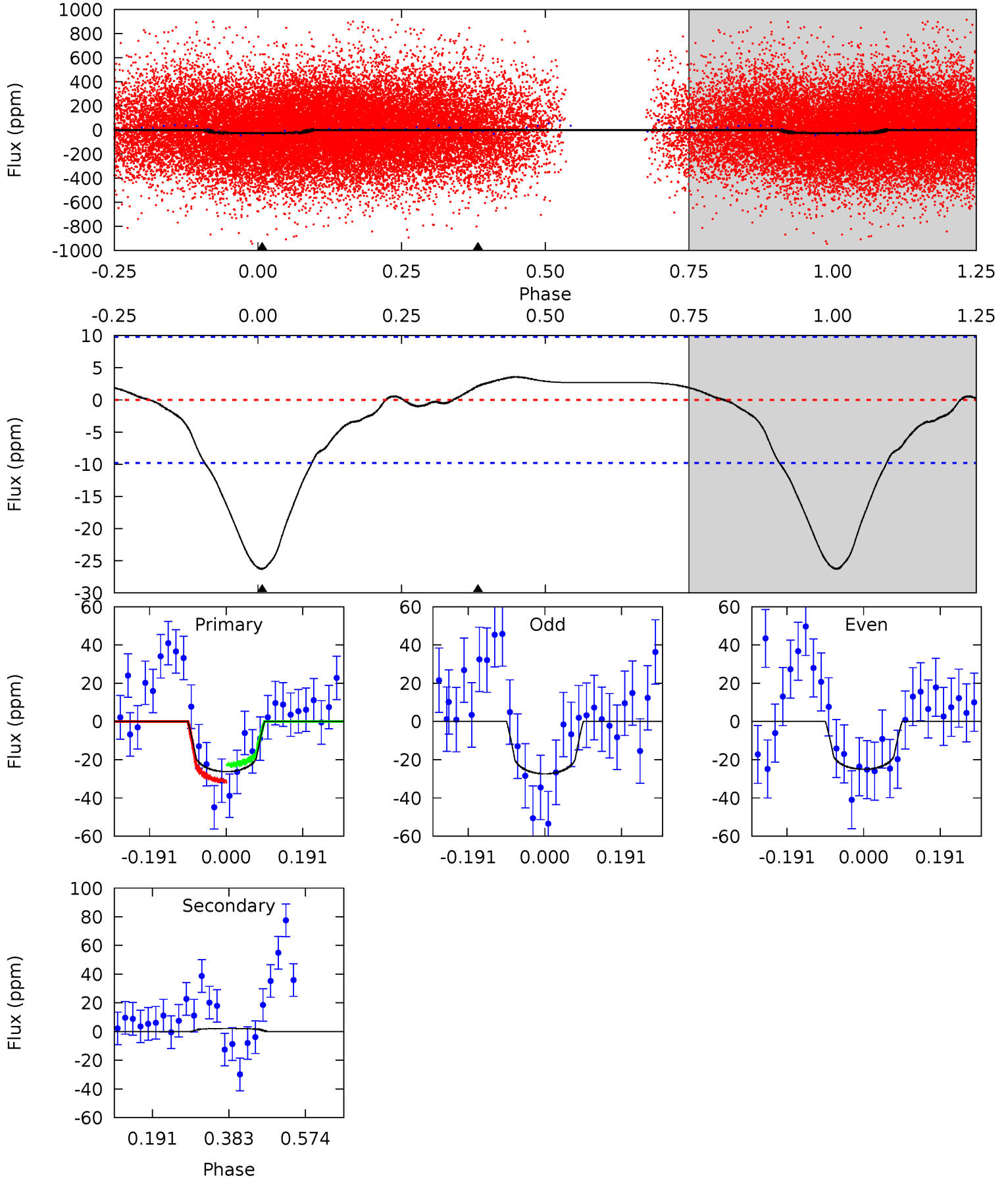
TCE 008981446-02 P= 0.981891 Days $T_0=131.951922$ (BKJD)



DV Model-Shift Uniqueness Test

008981446-02, P = 0.981830 Days, E = 131.155823 Days

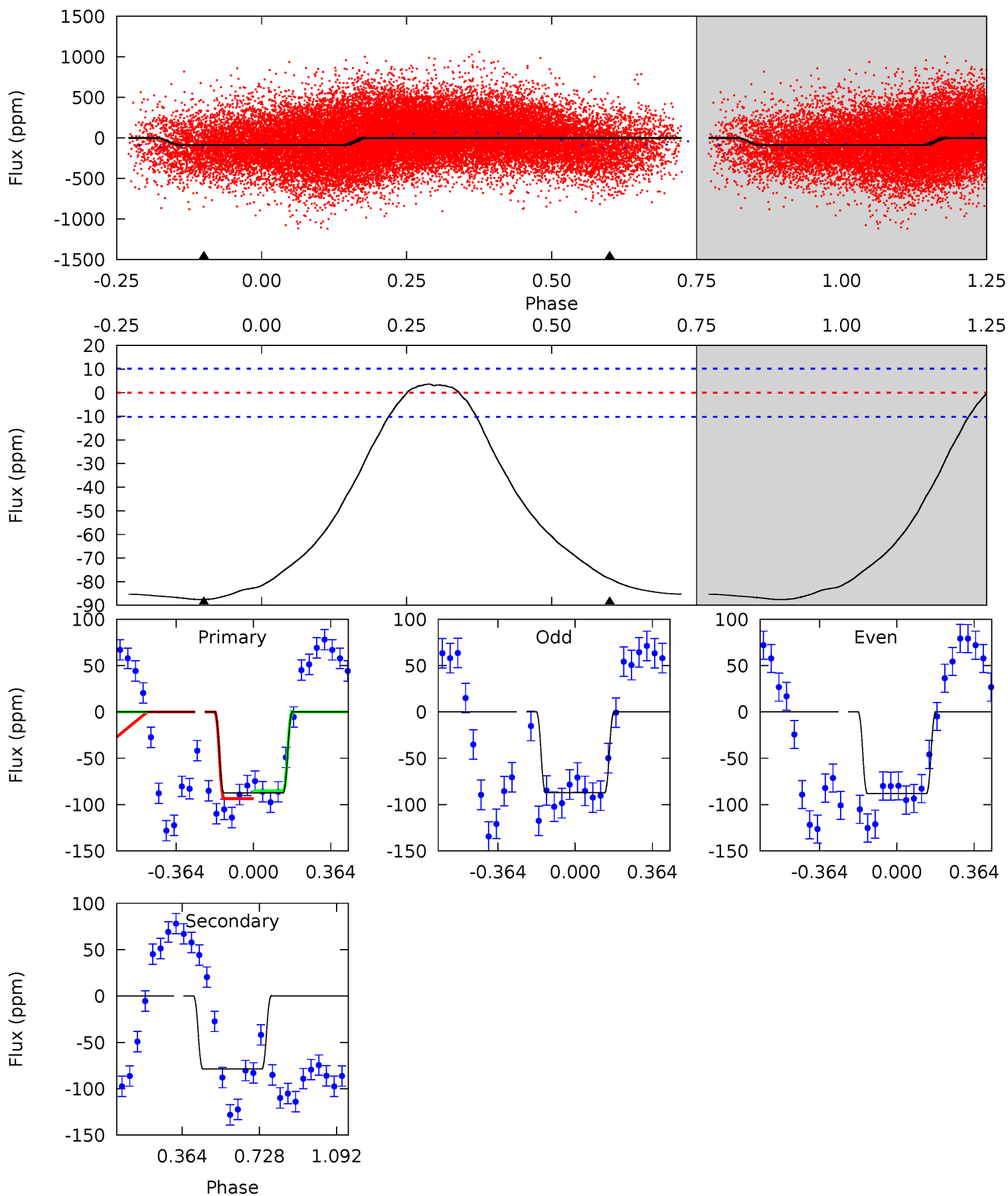
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	-0.96	0	0	4.43	1.31	0.82	11.9	11.9	-0.96	-0.96	0.53	1.08	0.12	1.84



Alt Model-Shift Uniqueness Test

008981446-02, P = 0.981891 Days, E = 130.970031 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.7	33.0	0	0	4.29	0.91	1.41	36.7	36.7	33.0	33.0	0.21	1.27	0.04	1.66



Stellar Parameters For KIC 008981446

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6212^{+194}_{-213}	$3.858^{+0.504}_{-0.126}$	$-0.380^{+0.300}_{-0.300}$	$2.091^{+0.459}_{-0.993}$	$1.151^{+0.183}_{-0.243}$	$0.177^{+0.945}_{-0.066}$
	+3%/-3%	+13%/-3%	+79%/-79%	+22%/-47%	+16%/-21%	+533%/-37%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008981446-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 2	$1.07^{+0.49}_{-0.44}$	3814^{+302}_{-488}	-4090^{+620}_{-741}	$-0.359^{+0.381}_{-1.014}$
Alt.	-79 ± 2	$2.02^{+0.54}_{-0.66}$	3788^{+307}_{-479}	5935^{+806}_{-583}	$4.412^{+4.911}_{-1.643}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

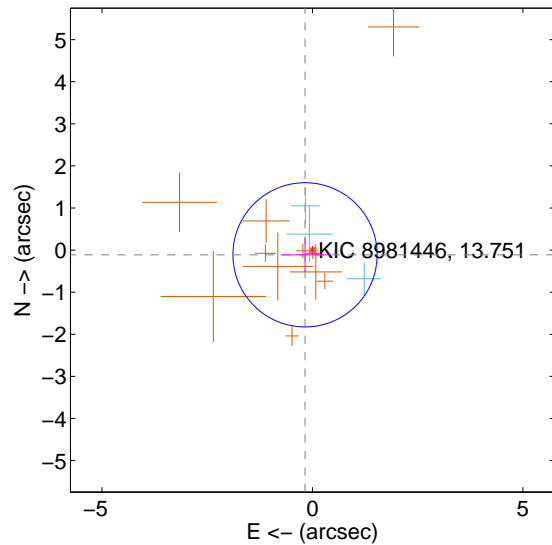
Supplemental centroid analysis for 008981446-02. Kepler magnitude: 13.75. Transit SNR 9.73

There are 3 quarters with good PRF difference image offsets

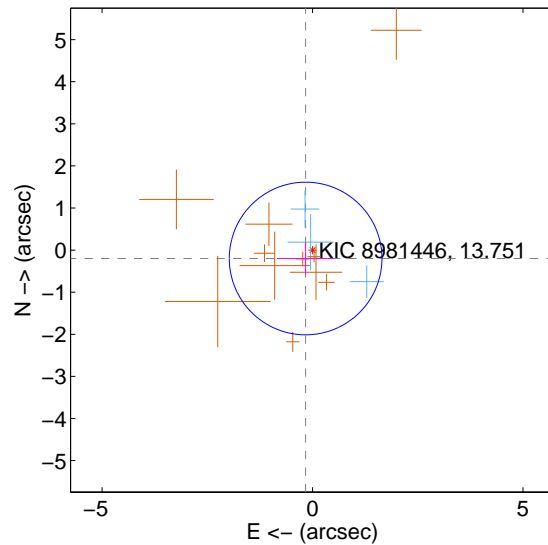
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.209 ± 0.571	0.37	0.176 ± 0.576	-0.112 ± 0.403
PRF-fit source offset from KIC position	0.258 ± 0.604	0.43	0.164 ± 0.680	-0.200 ± 0.389
photometric centroid source offset	1.15 ± 1.21	0.95	-0.00 ± 1.23	-1.15 ± 1.21

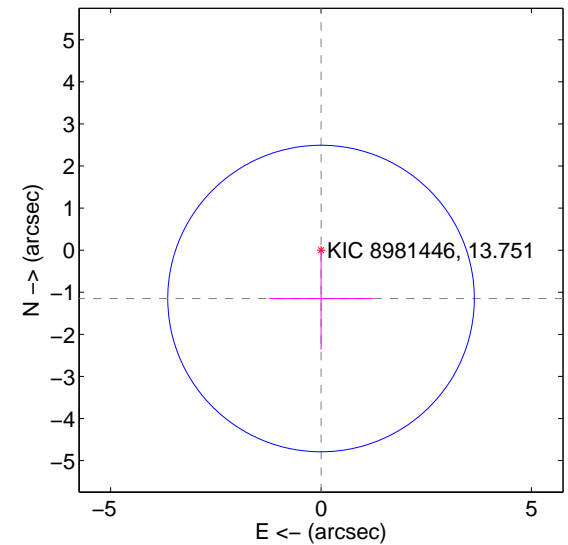
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

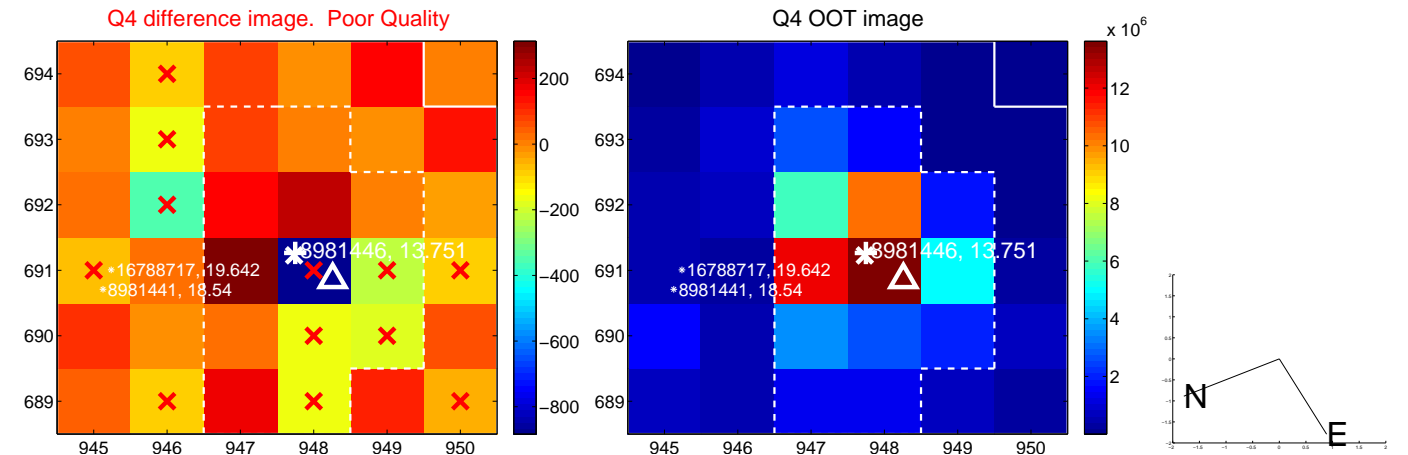
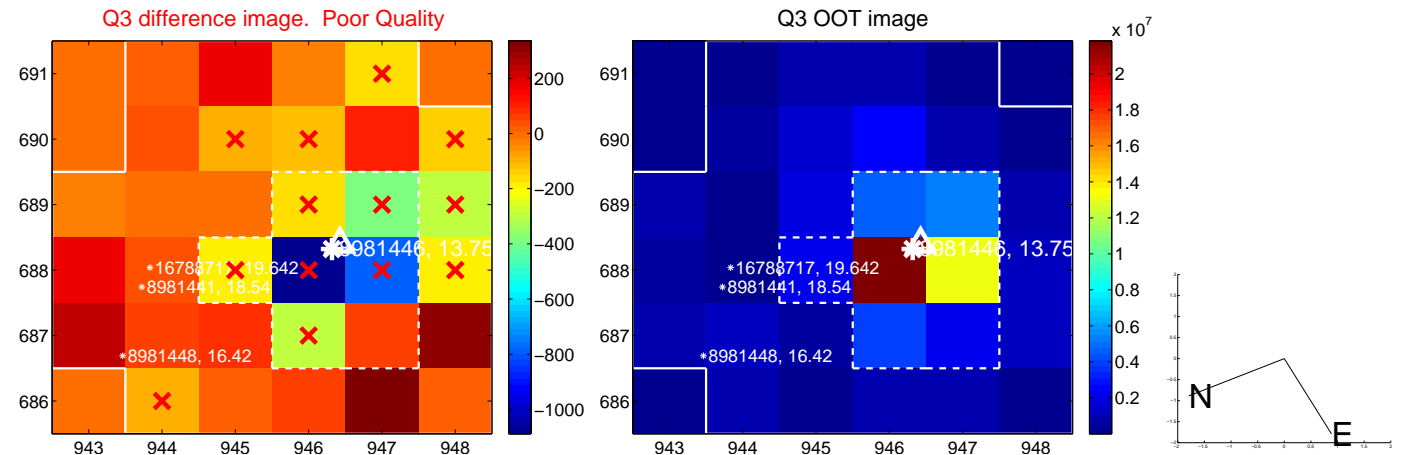
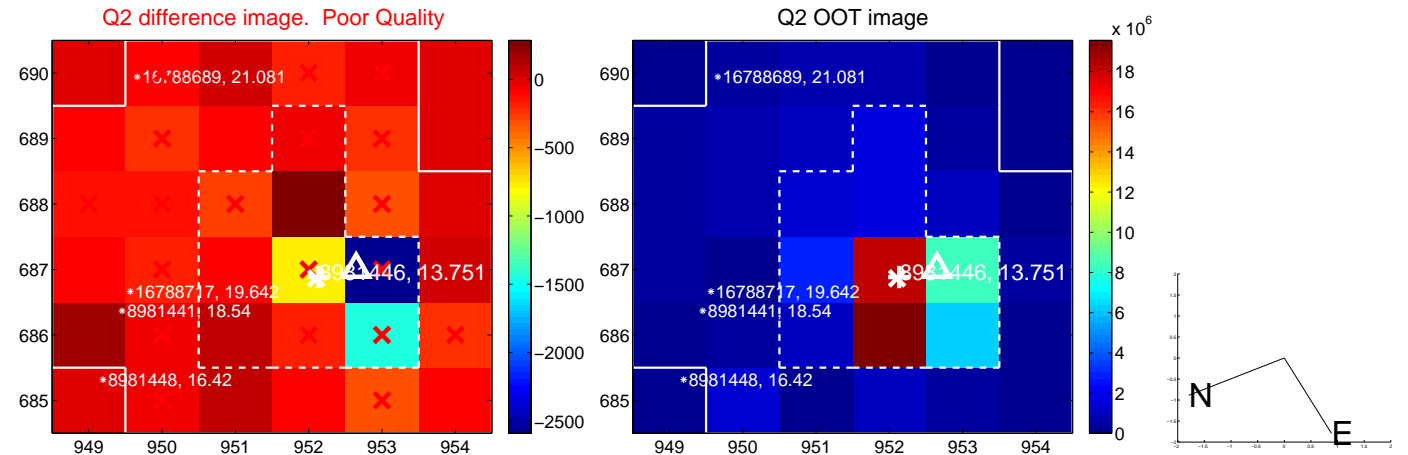
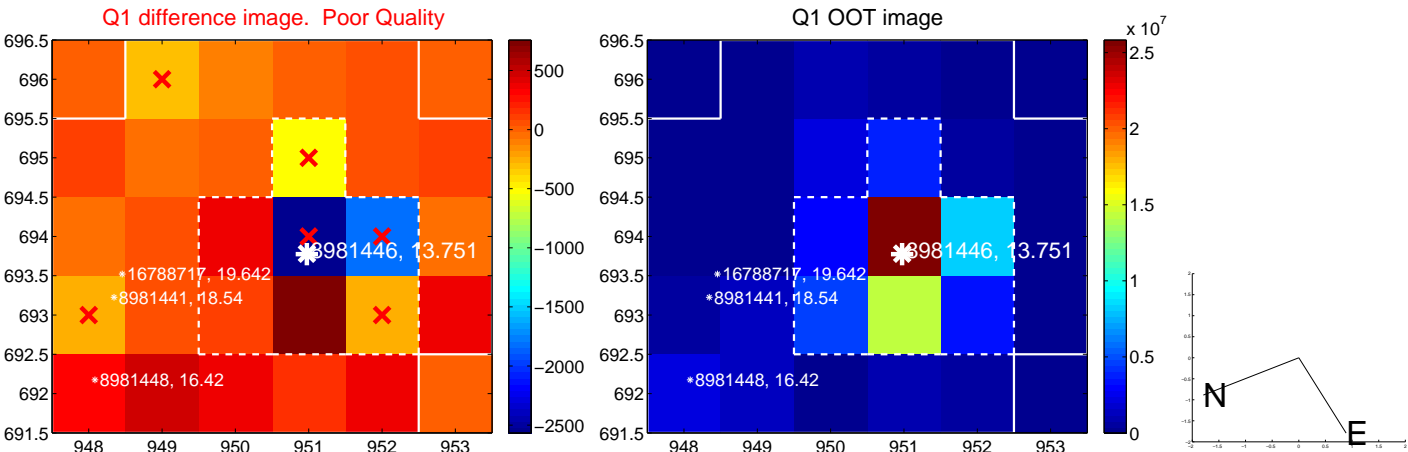


offset from photometric centroids

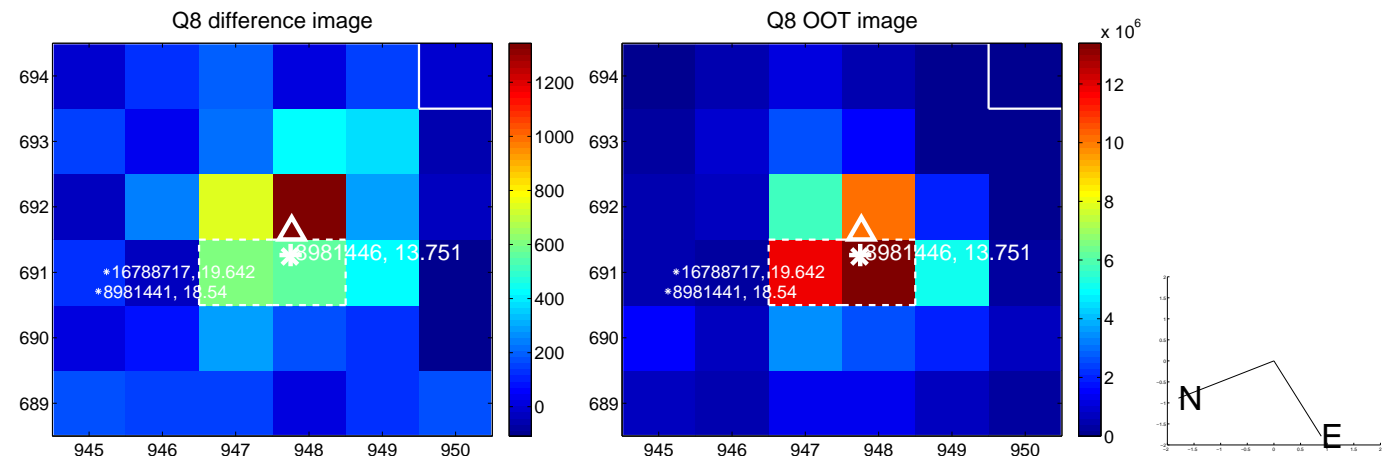
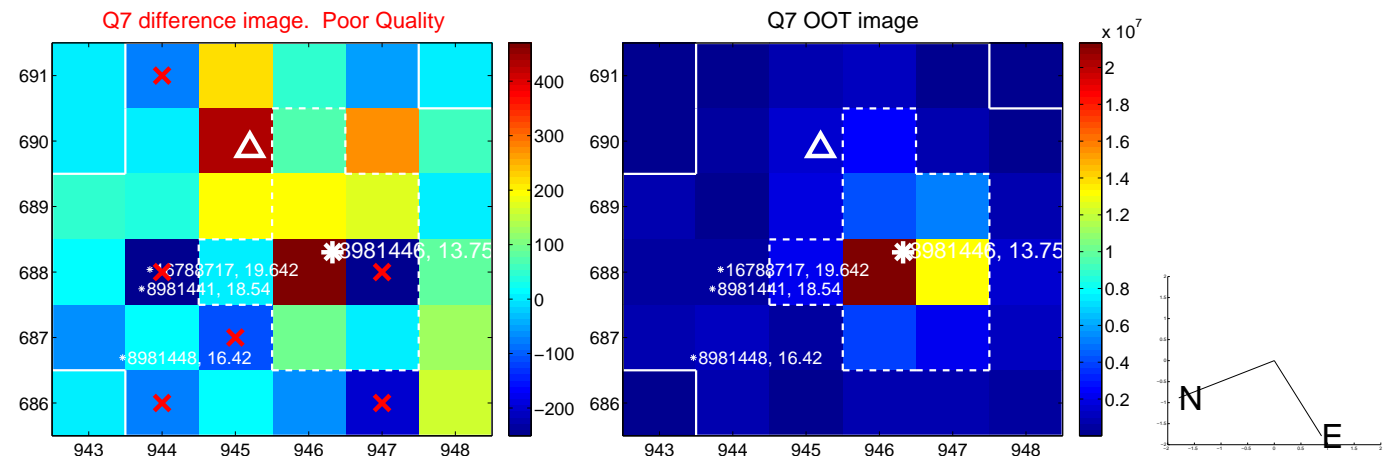
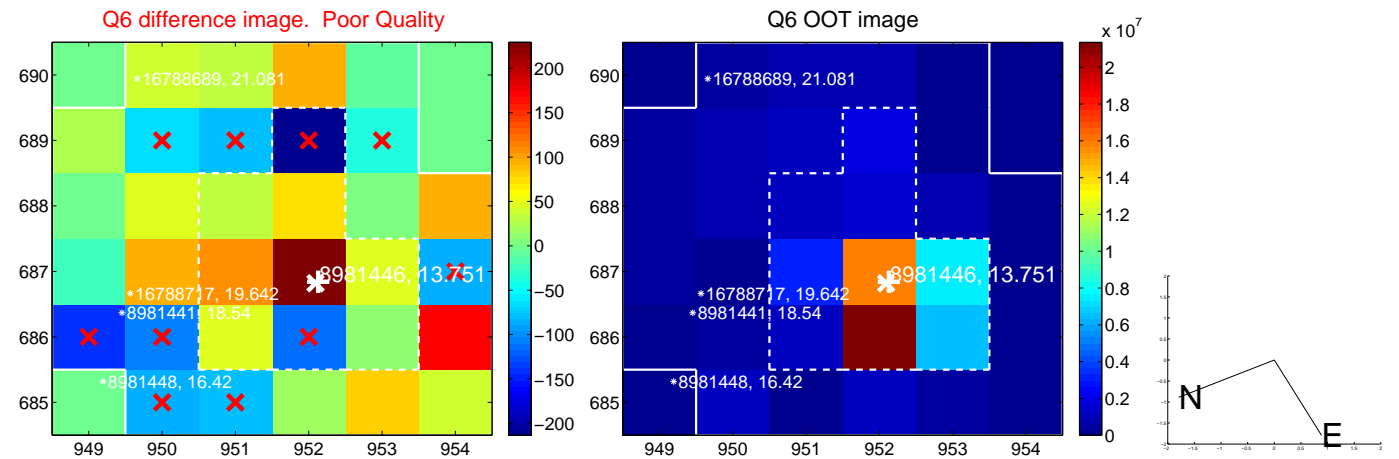
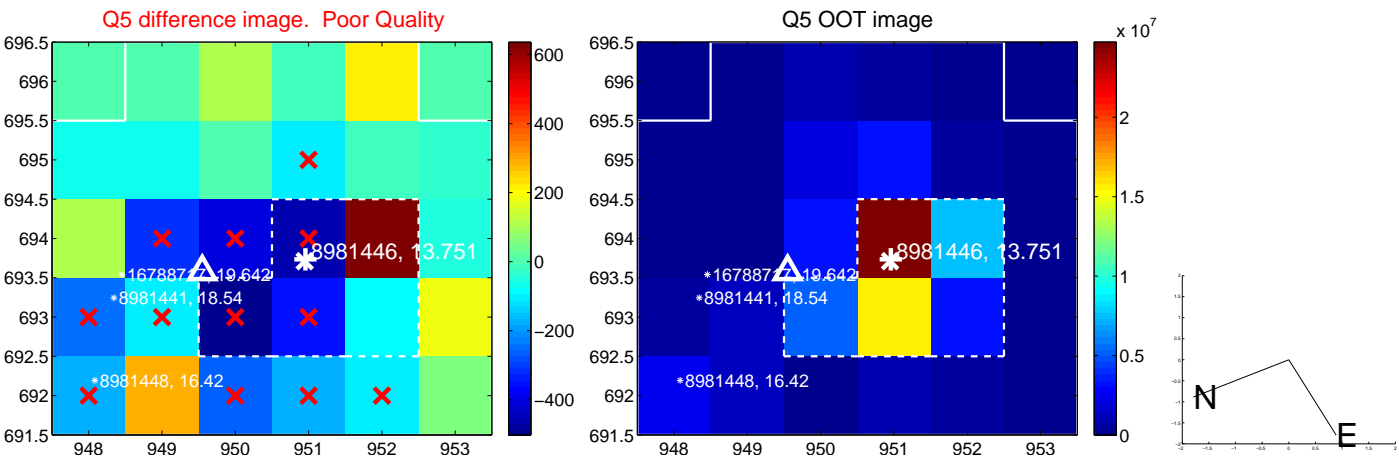


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

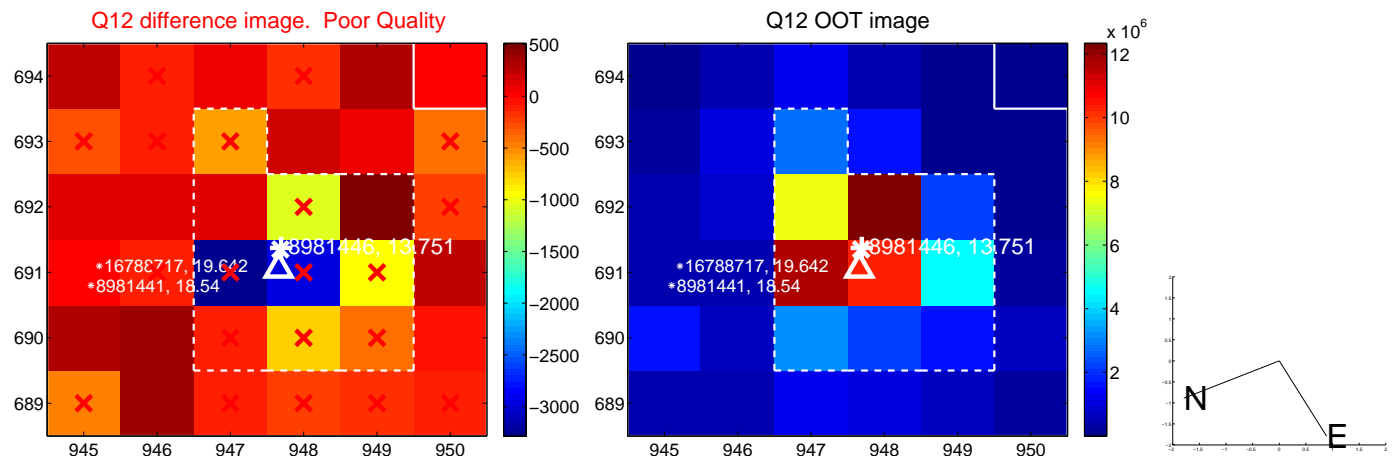
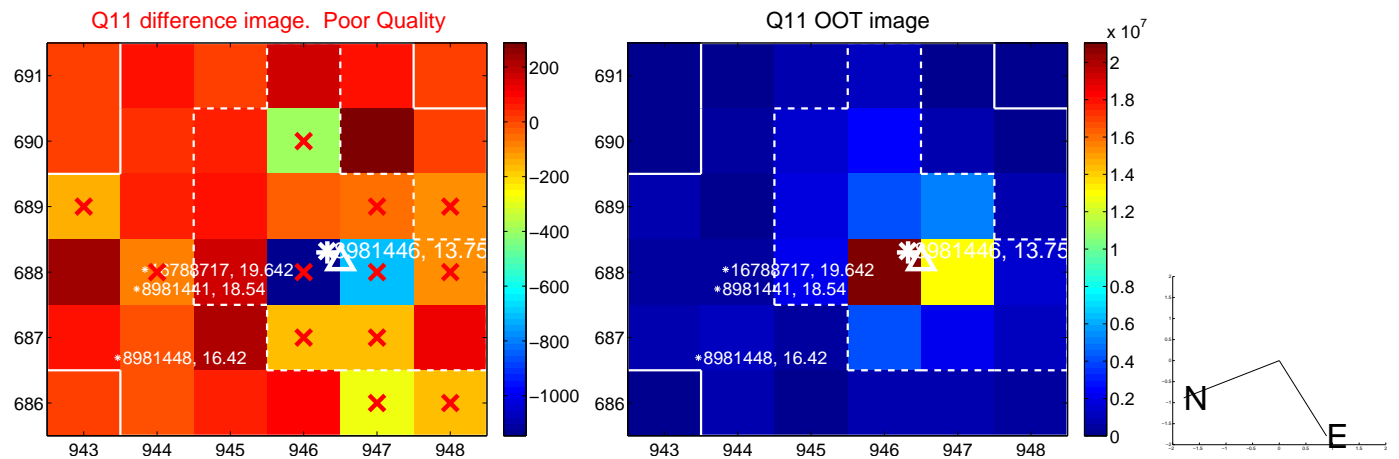
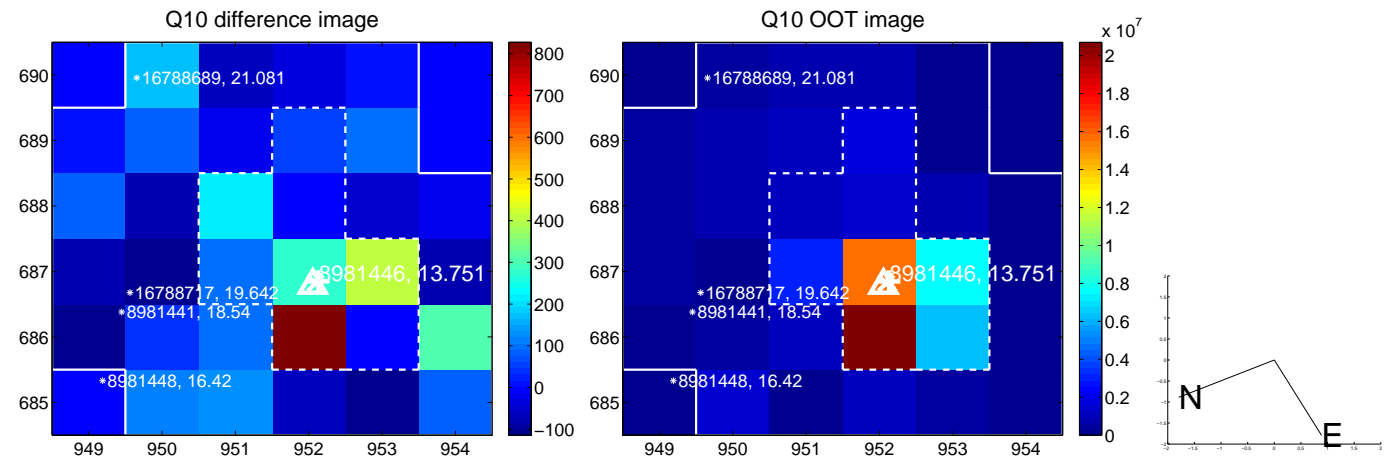
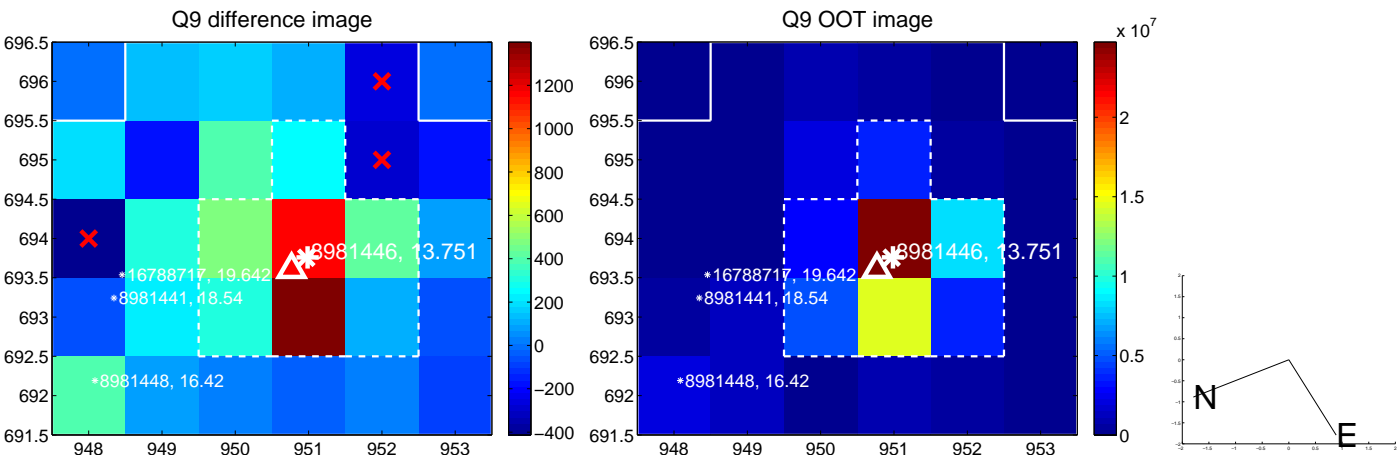
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



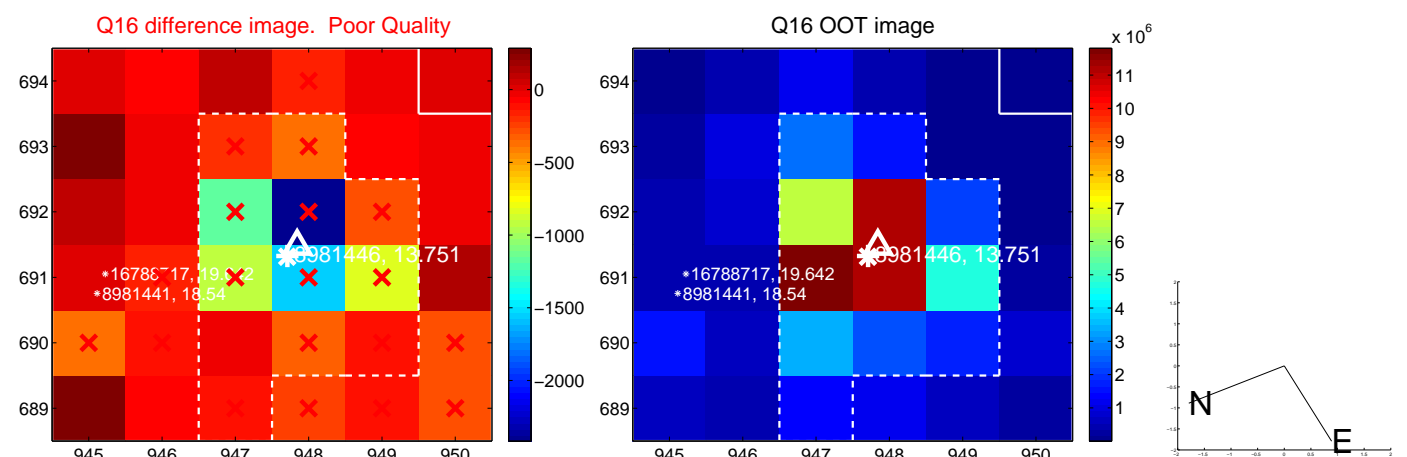
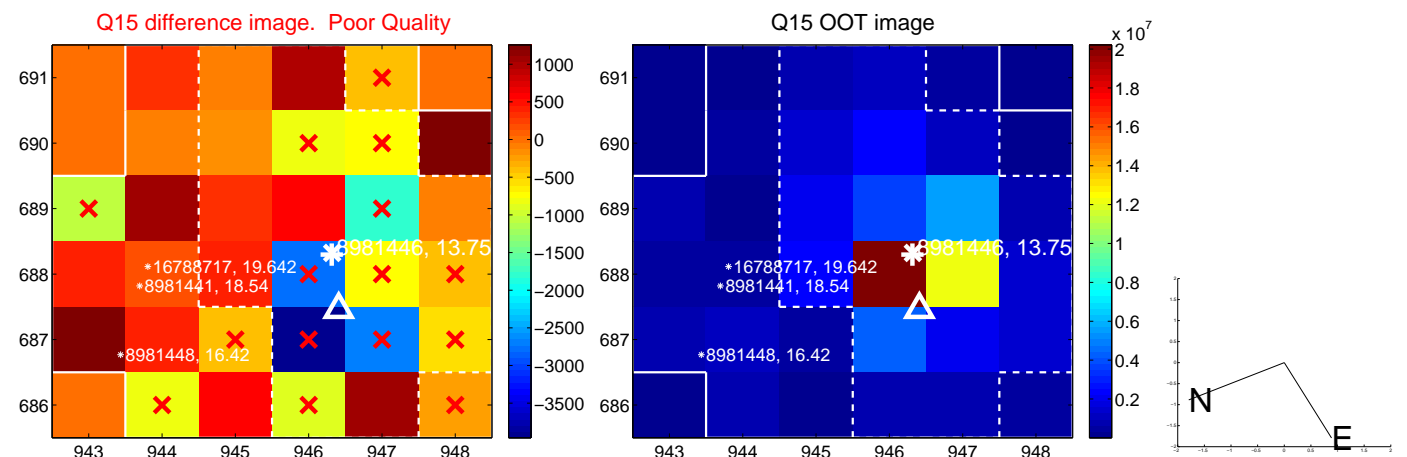
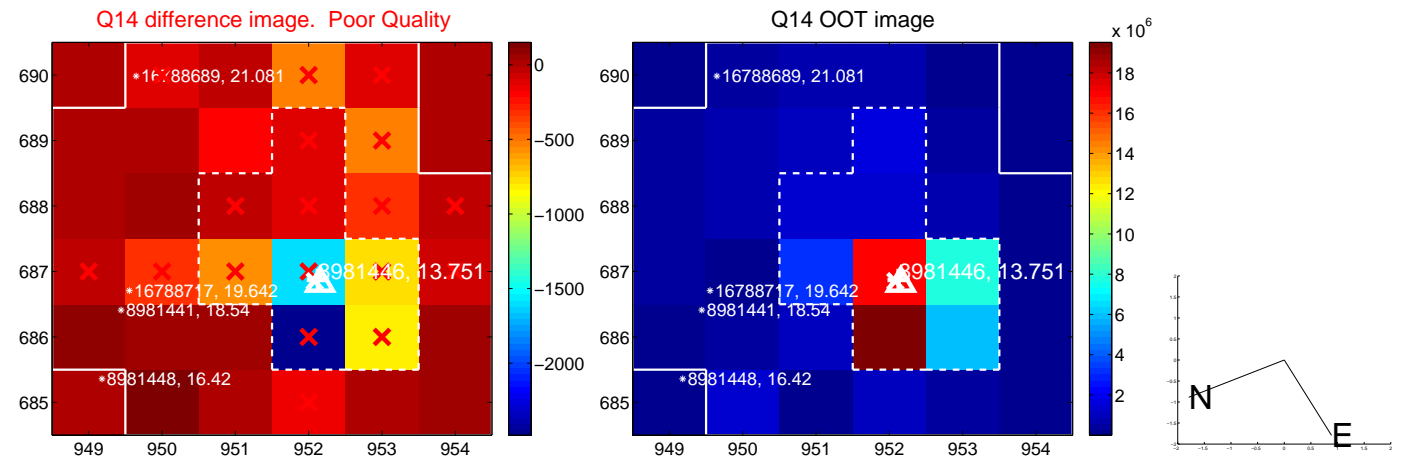
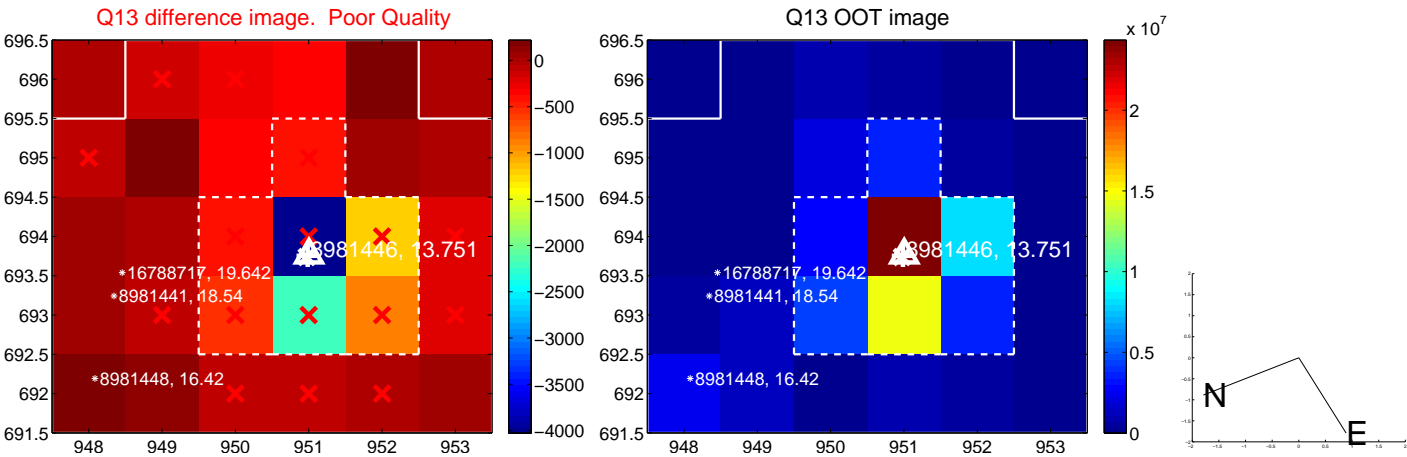
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



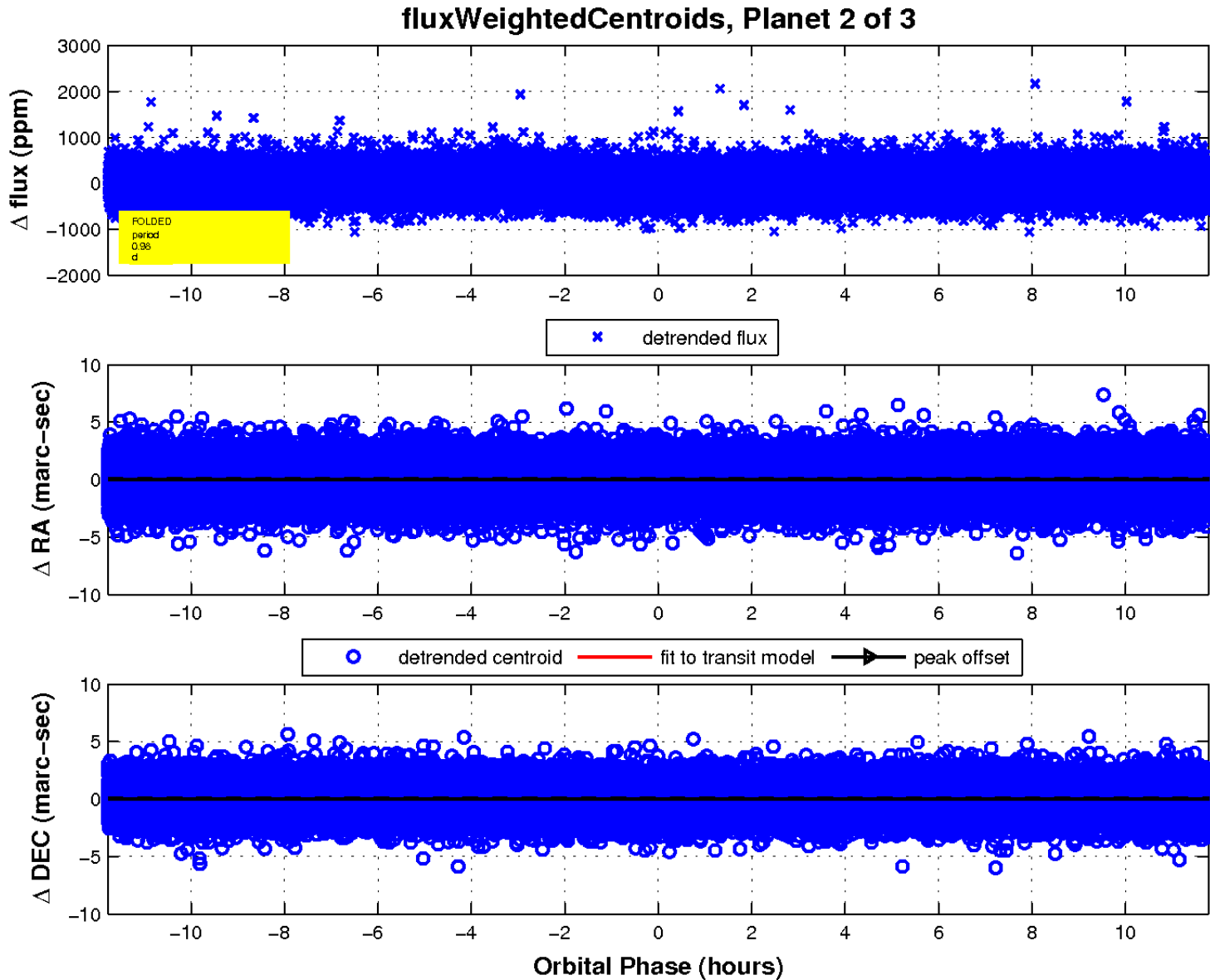
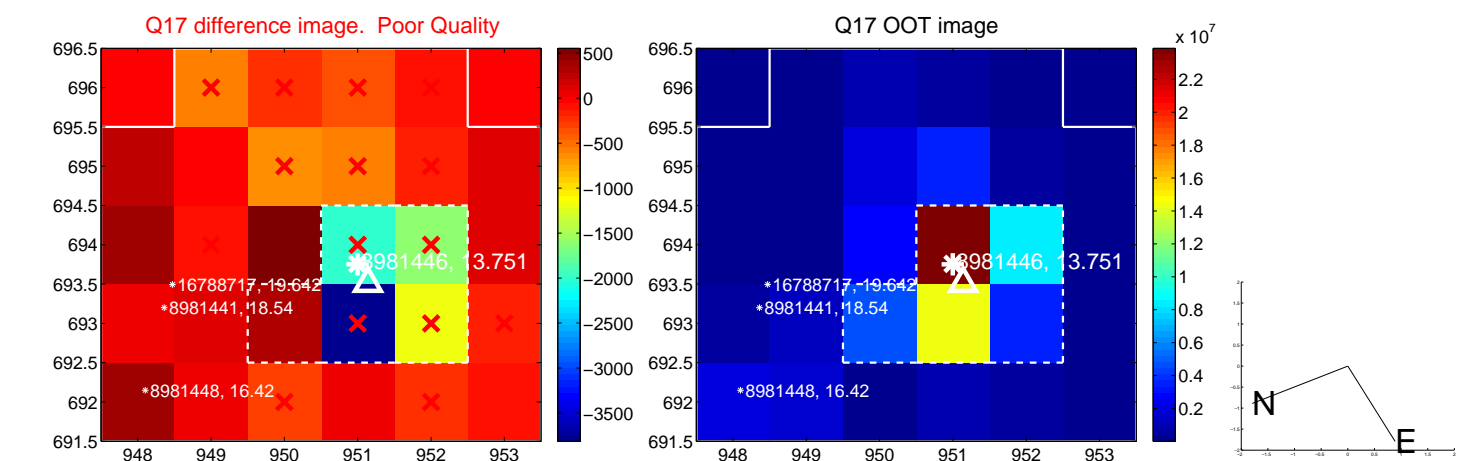
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

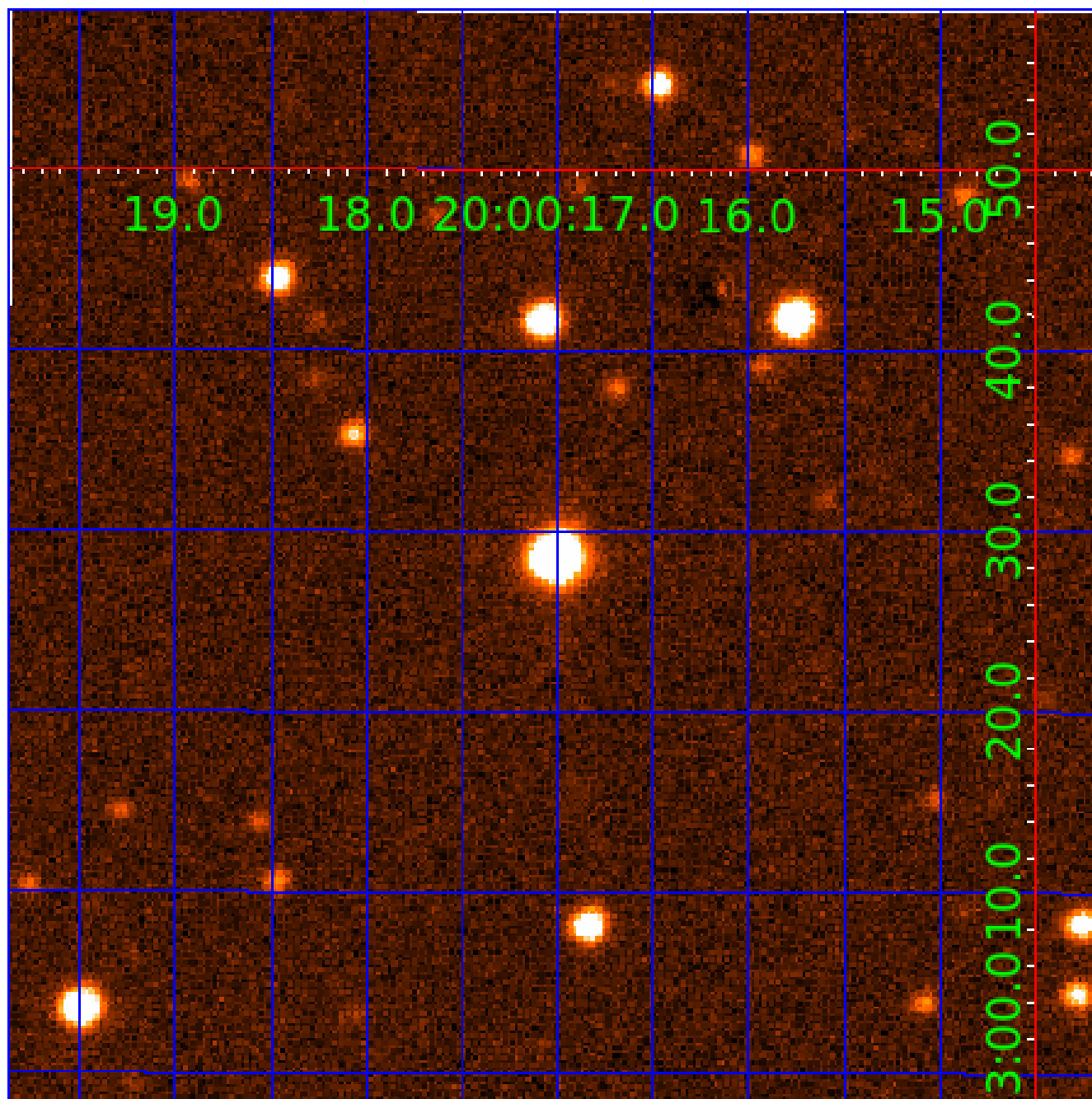


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008981446

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008981446-01	OBS	No	0.981579	131.936446	22.2	3.850	8.4	7.3	2.09	6212	1.08	14217.48
008981446-02	OBS	No	0.981830	132.137654	28.0	4.076	8.6	9.7	2.09	6212	1.17	14212.62
008981446-03	OBS	No	41.835501	147.768747	285.0	3.345	7.2	7.1	2.09	6212	3.54	95.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008981446-01	OBS	FP	0.00	1	0	1	0	LPP_DV—HALO_GHOST
008981446-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
008981446-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

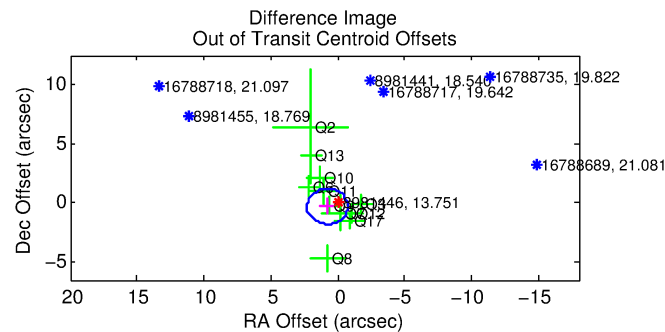
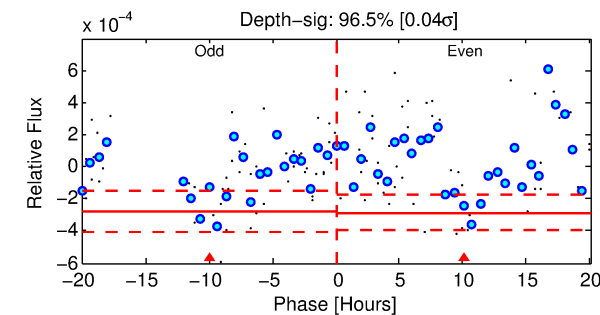
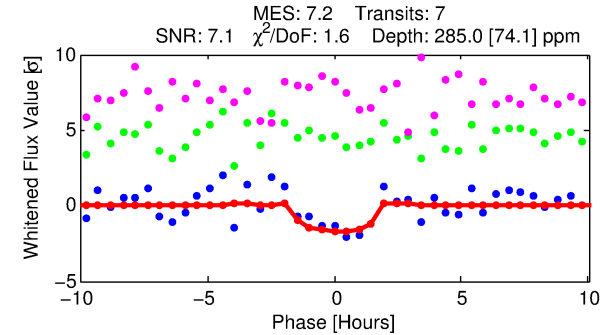
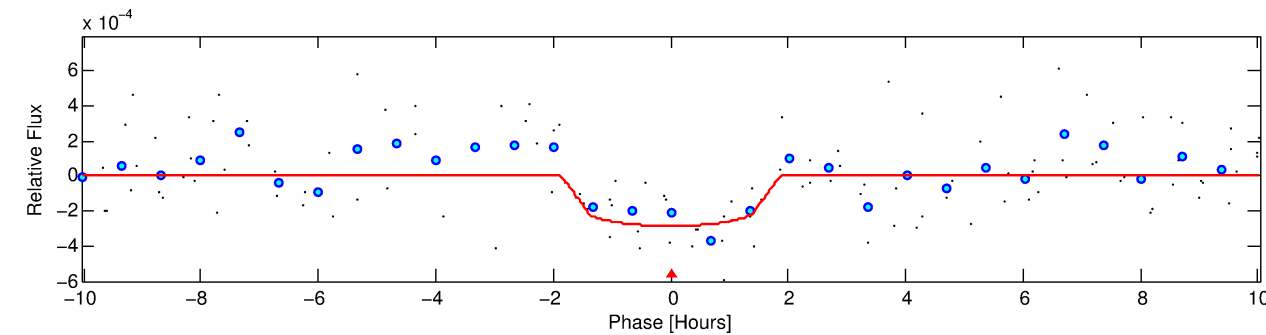
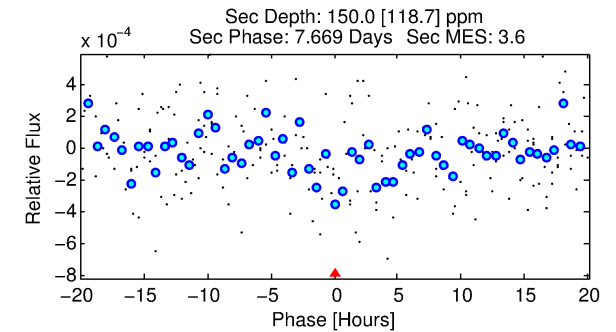
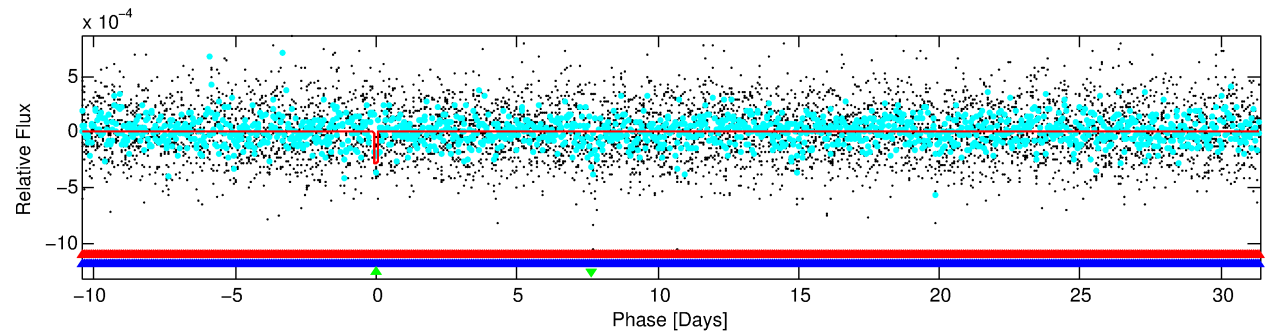
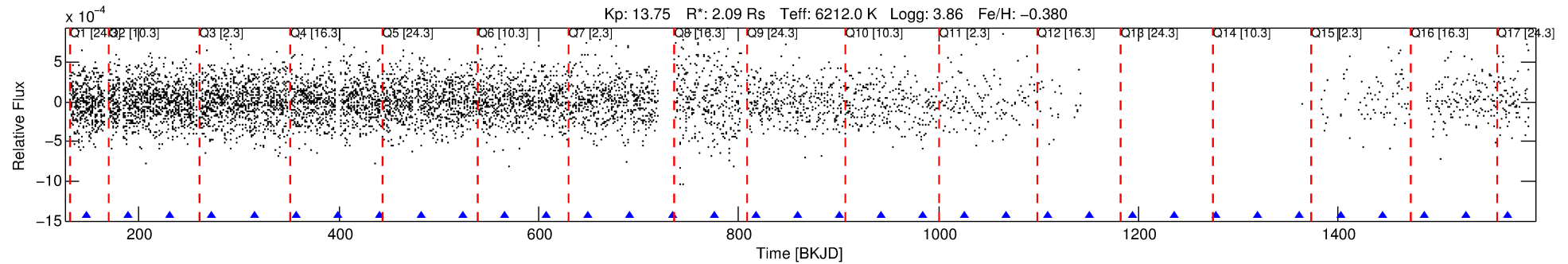
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008981446-03

No Significant Match Found

DV One-Page Summary

KIC: 8981446 Candidate: 3 of 3 Period: 41.836 d



DV Fit Results:

Period = 41.83550 [0.00100] d
Epoch = 147.7687 [0.0152] BKJD
Rp/R* = 0.0155 [0.0714]
a/R* = 96.21 [2227.66]
b = 0.13 [173.82]
Seff = 95.50 [80.90]
Teq = 797 [169] K
Rp = 3.54 [16.37] Re
a = 0.2472 [0.1235] AU
Ag = 401.20 [3714.47] [0.11σ]
Teffp = 5516 [12716] K [0.37σ]

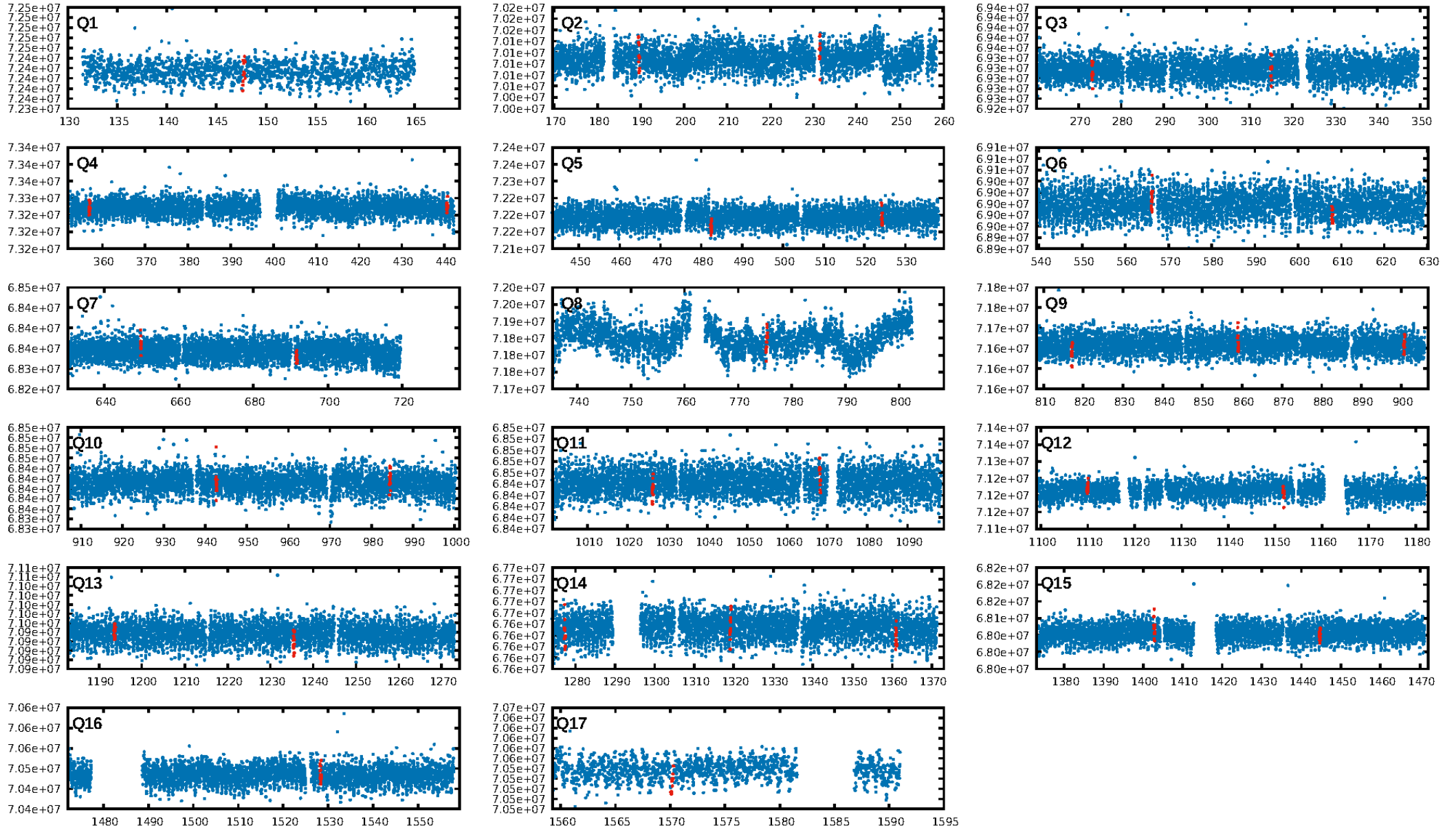
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [185.95σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 23.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.15e-10
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 2.889
Centroid-sig: 47.9%
Centroid-so: 0.922 arcsec [1.02σ]
OotOffset-rm: 0.840 arcsec [1.67σ]
KicOffset-rm: 0.875 arcsec [1.72σ]
OotOffset-st: 3/3/2/3 [11]
KicOffset-st: 3/3/2/3 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.00 [0/17]

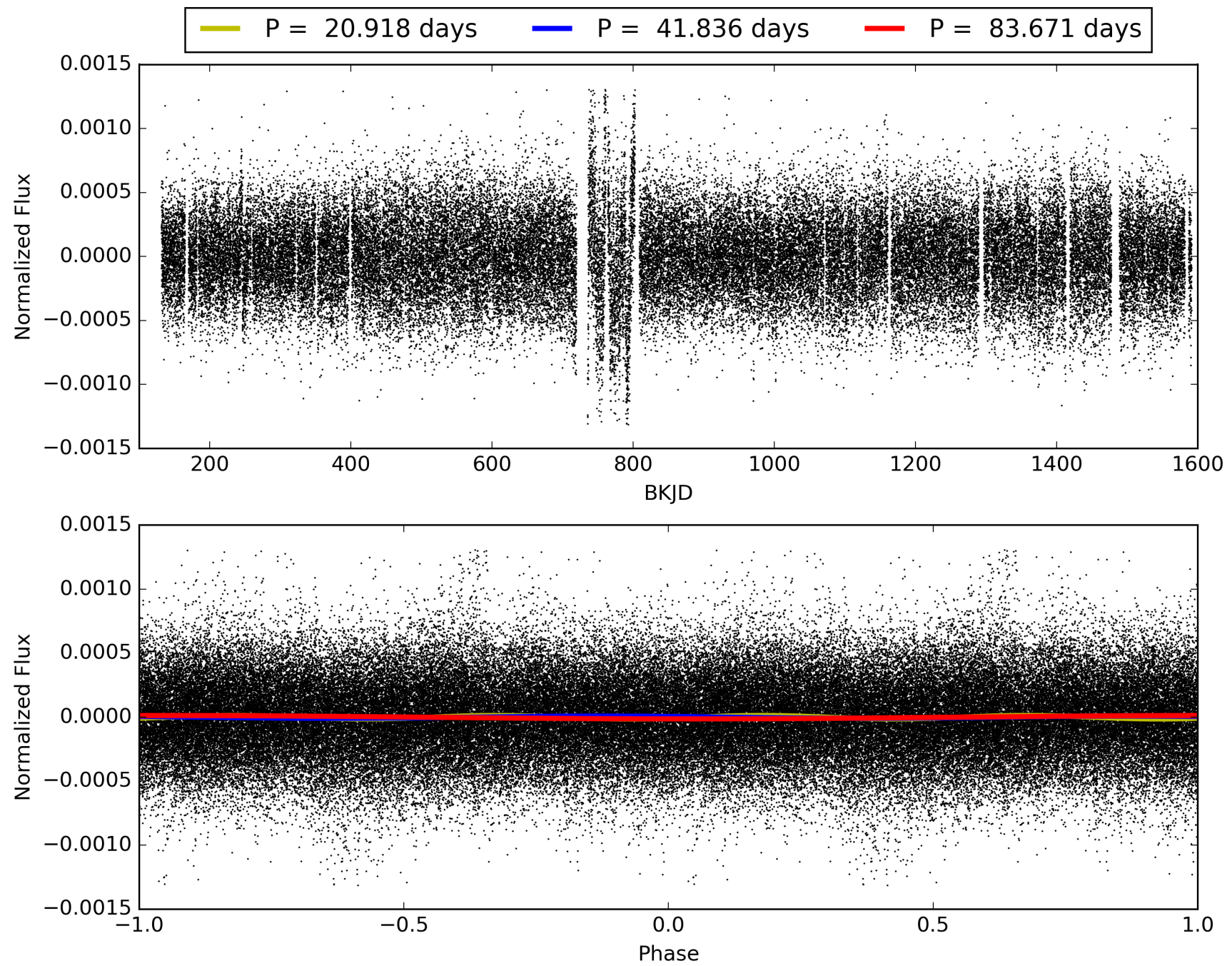
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:35:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008981446-03, PDC Light Curves

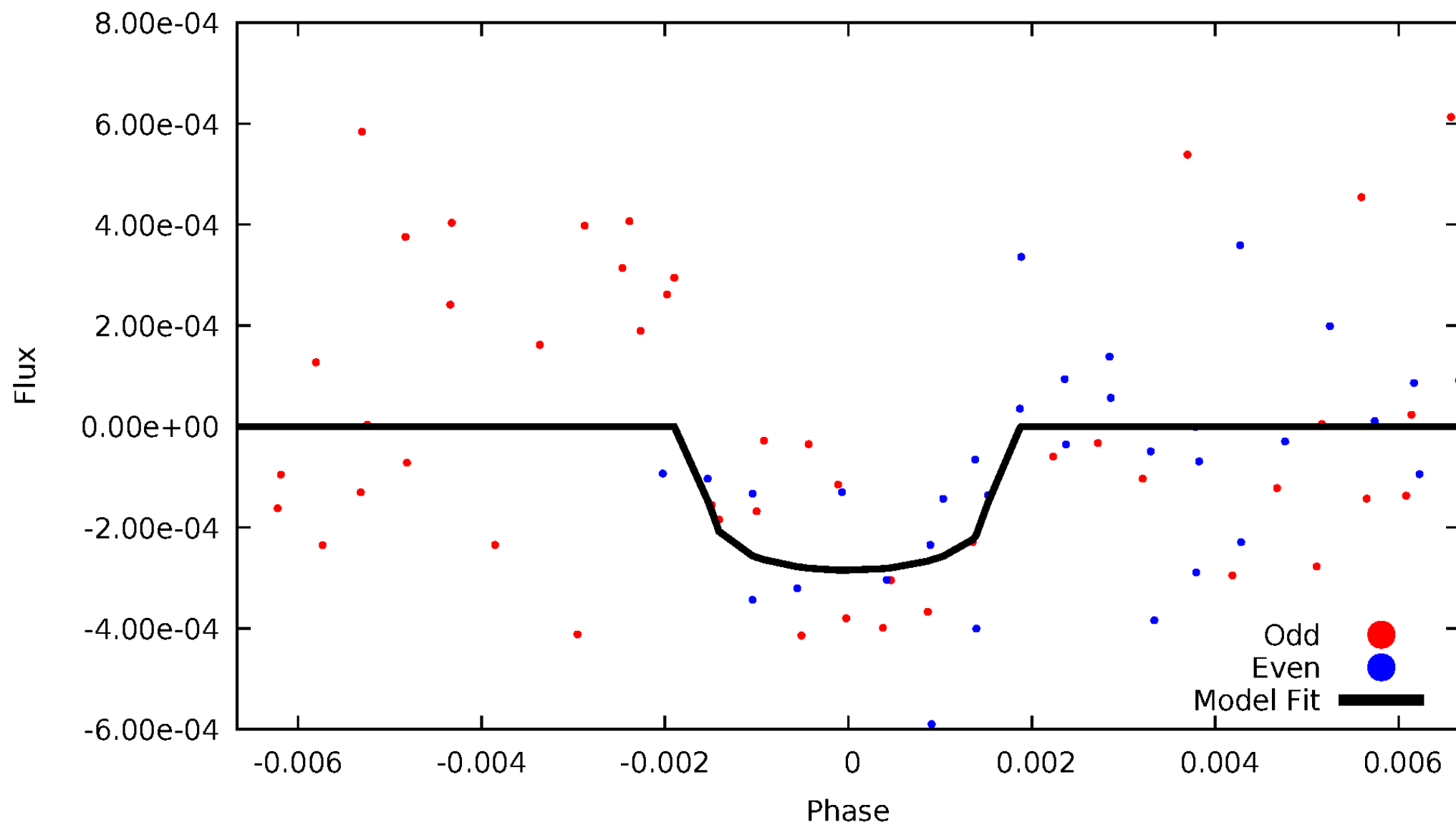


TCE 008981446-03



DV Odd/Even

TCE 008981446-03

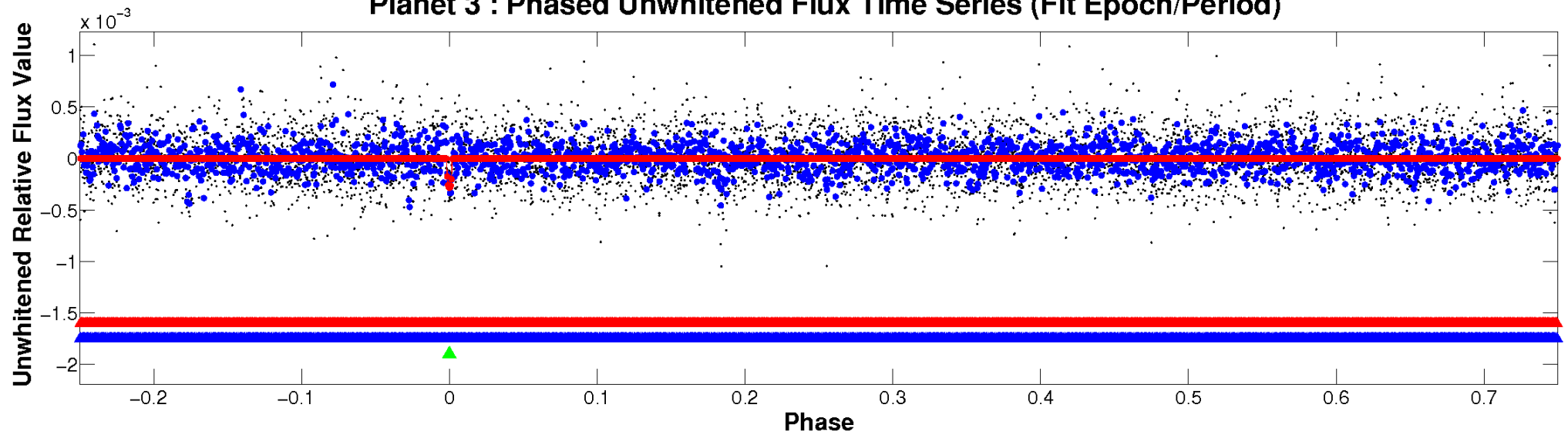


ALT Odd/Even

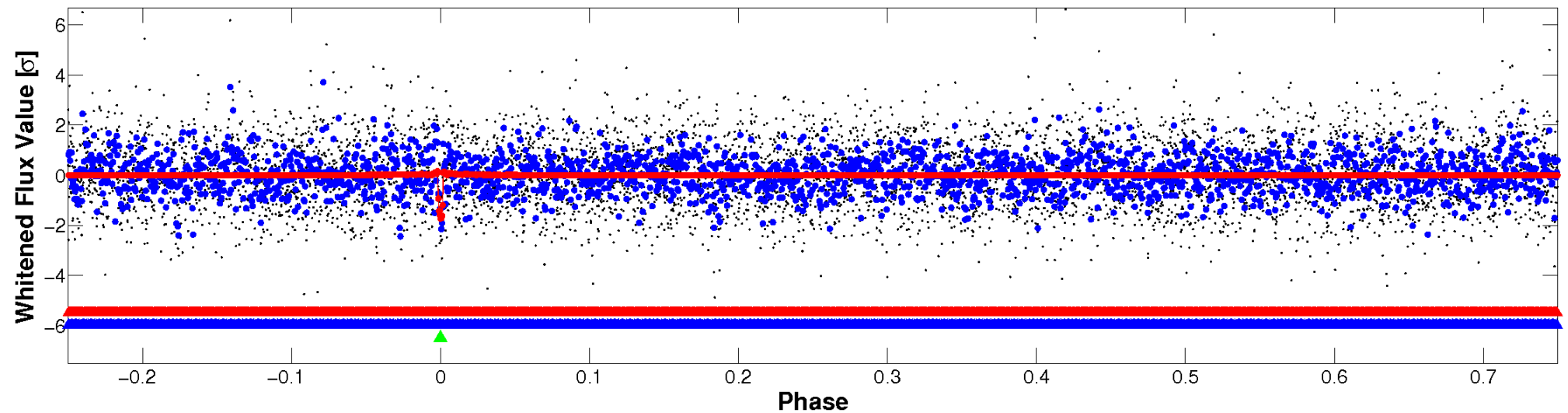
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

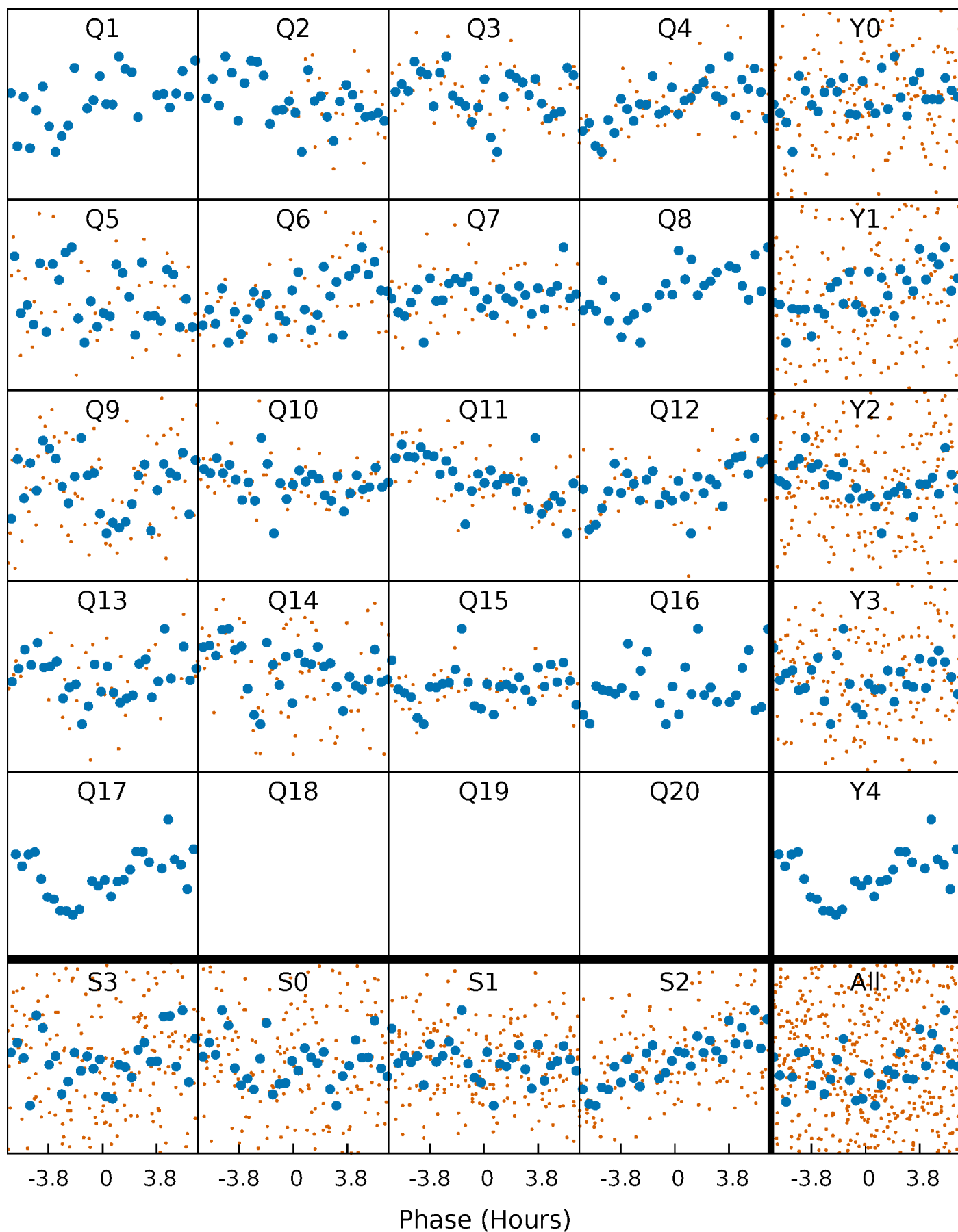


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



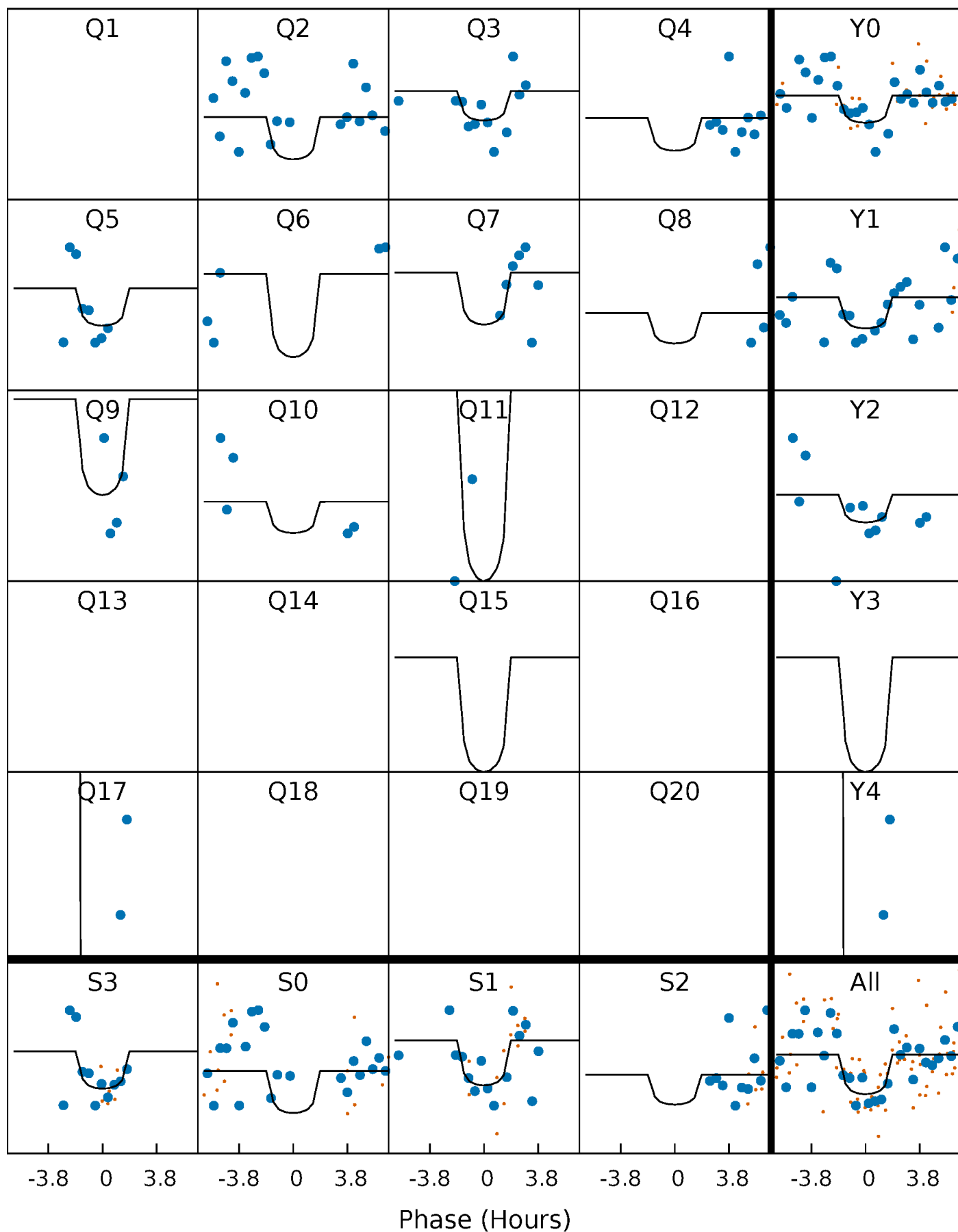
PDC Quarter-Phased Transit Curves

TCE 008981446-03 P= 41.835501 Days $T_0=147.768747$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008981446-03 P= 41.835501 Days $T_0=147.768747$ (BKJD)

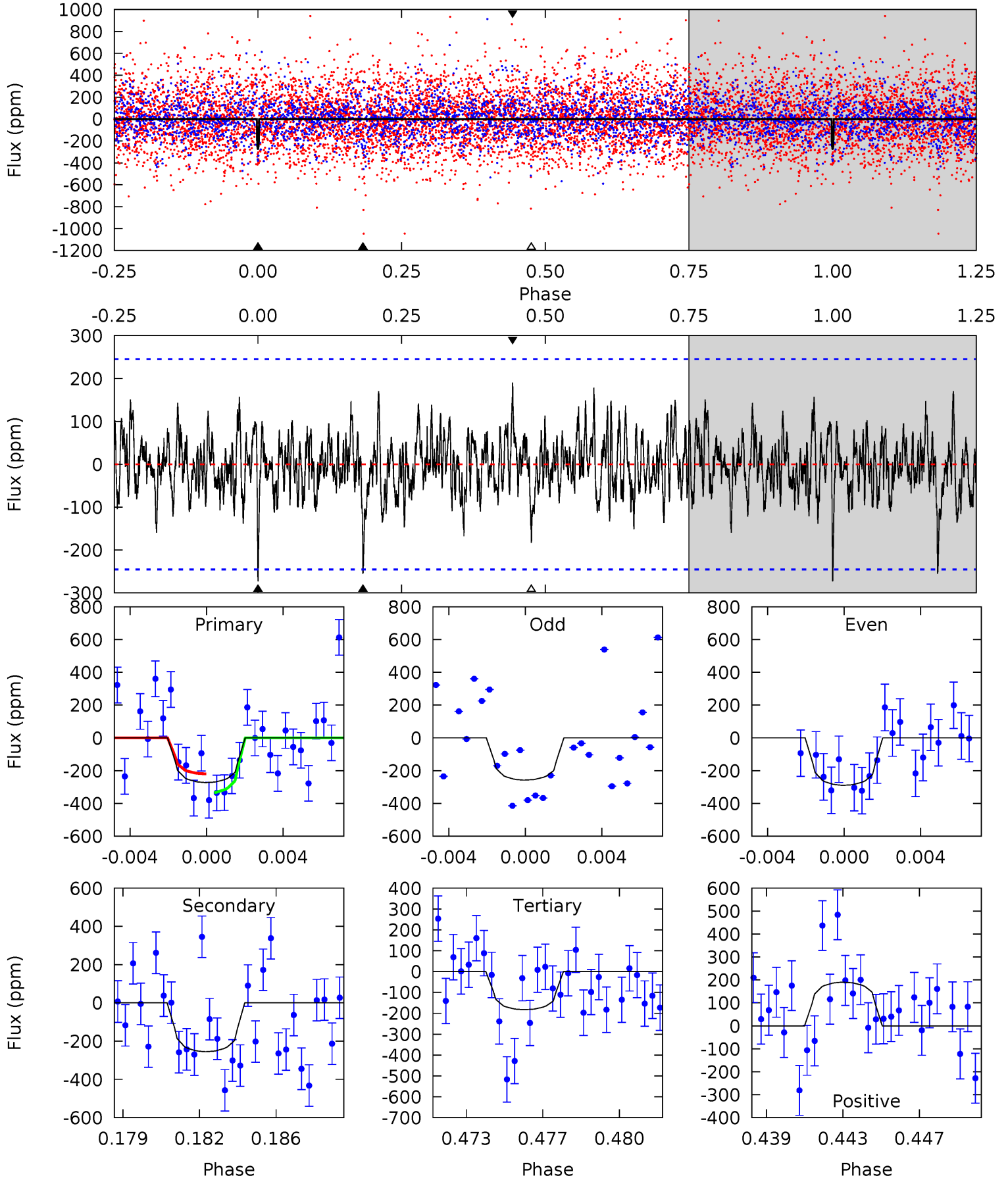


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008981446-03, P = 41.835501 Days, E = 105.933246 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.79	5.42	3.88	4.04	5.21	2.90	1.24	1.91	1.75	1.54	1.38	0.34	0.99	0.41	1.23



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008981446

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6212^{+194}_{-213}	$3.858^{+0.504}_{-0.126}$	$-0.380^{+0.300}_{-0.300}$	$2.091^{+0.459}_{-0.993}$	$1.151^{+0.183}_{-0.243}$	$0.177^{+0.945}_{-0.066}$
	+3%/-3%	+13%/-3%	+79%/-79%	+22%/-47%	+16%/-21%	+533%/-37%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008981446-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-255 ± 47	$10.55^{+11.87}_{-7.76}$	1086^{+86}_{-137}	3818^{+2706}_{-753}	77^{+986}_{-60}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

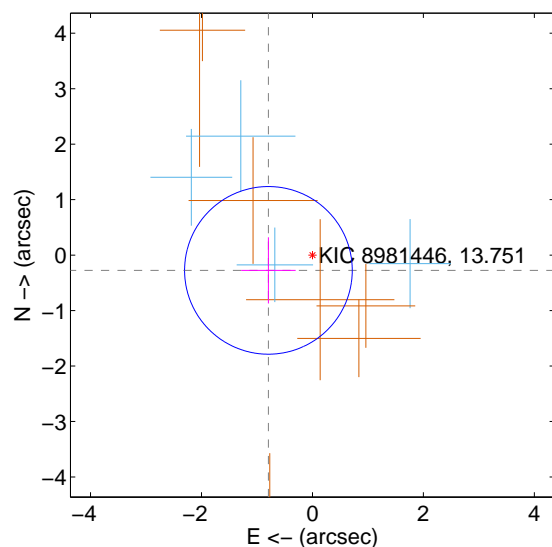
Supplemental centroid analysis for 008981446-03. Kepler magnitude: 13.75. Transit SNR 7.10

There are 4 quarters with good PRF difference image offsets

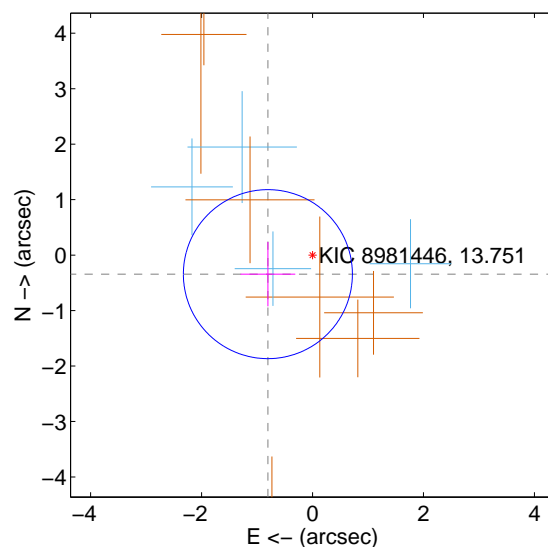
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.840 ± 0.504	1.67	0.794 ± 0.491	-0.275 ± 0.597
PRF-fit source offset from KIC position	0.875 ± 0.508	1.72	0.805 ± 0.493	-0.343 ± 0.581
photometric centroid source offset	0.92 ± 0.90	1.02	0.92 ± 0.90	-0.02 ± 0.86

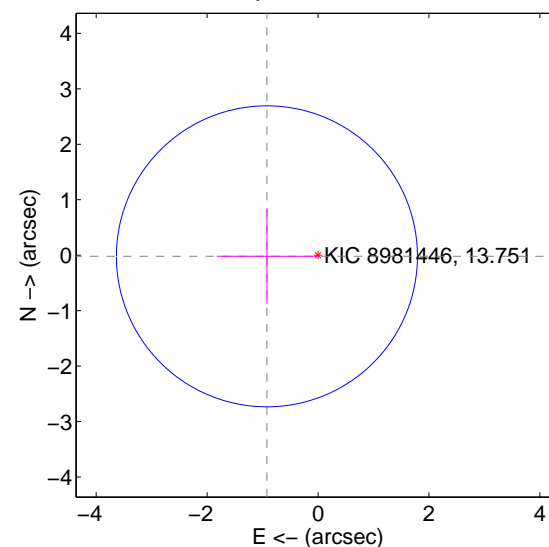
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

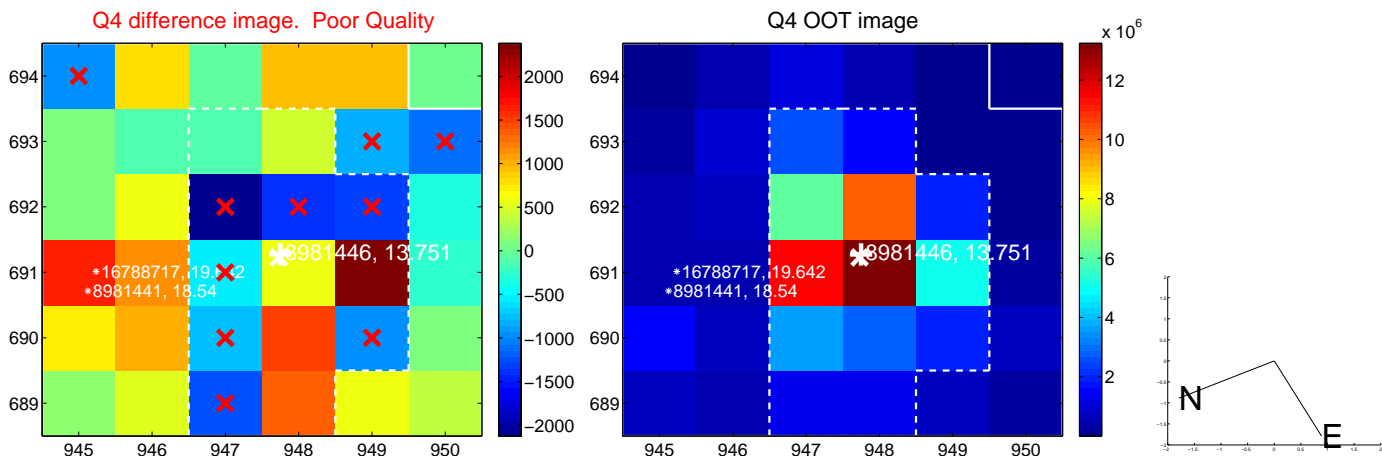
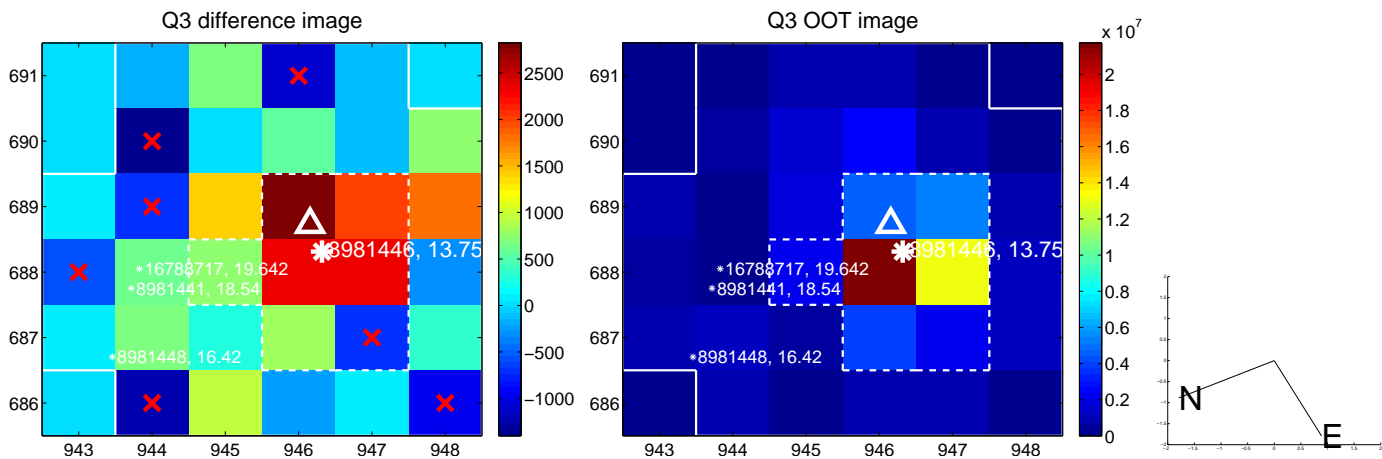
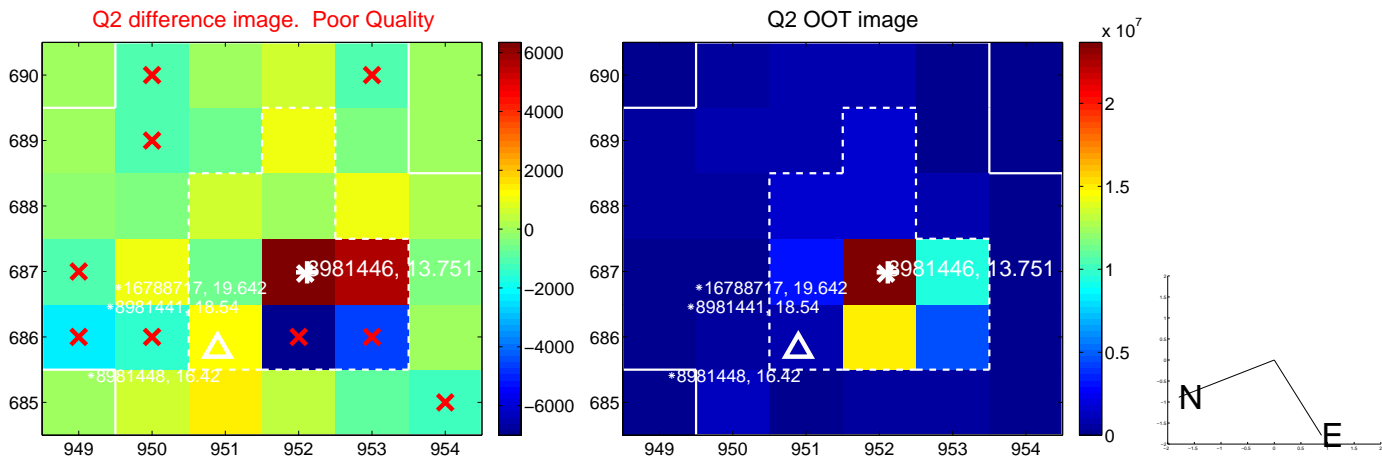
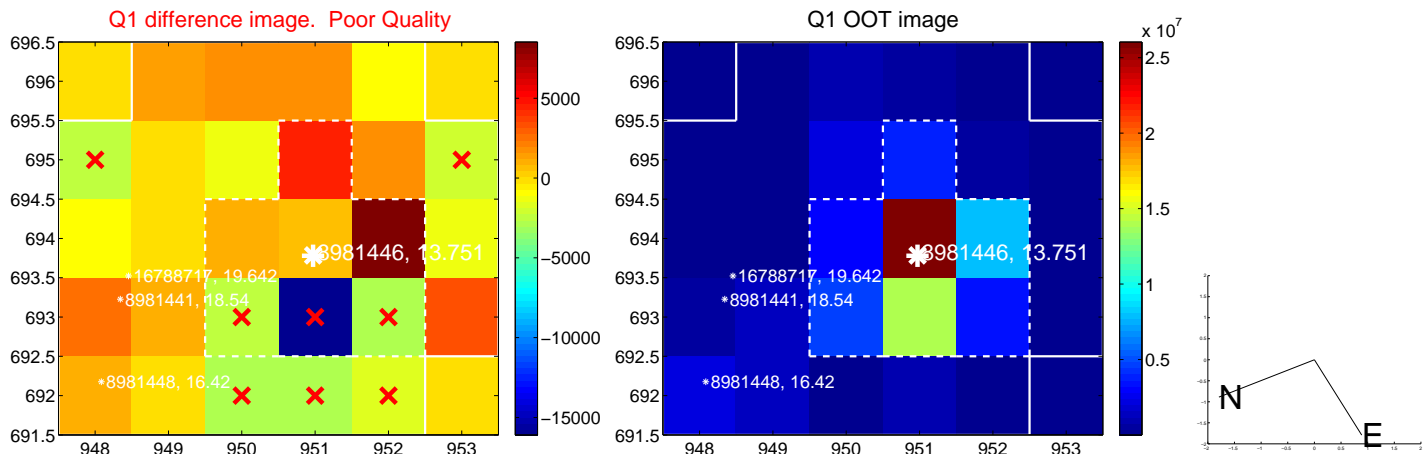


offset from photometric centroids

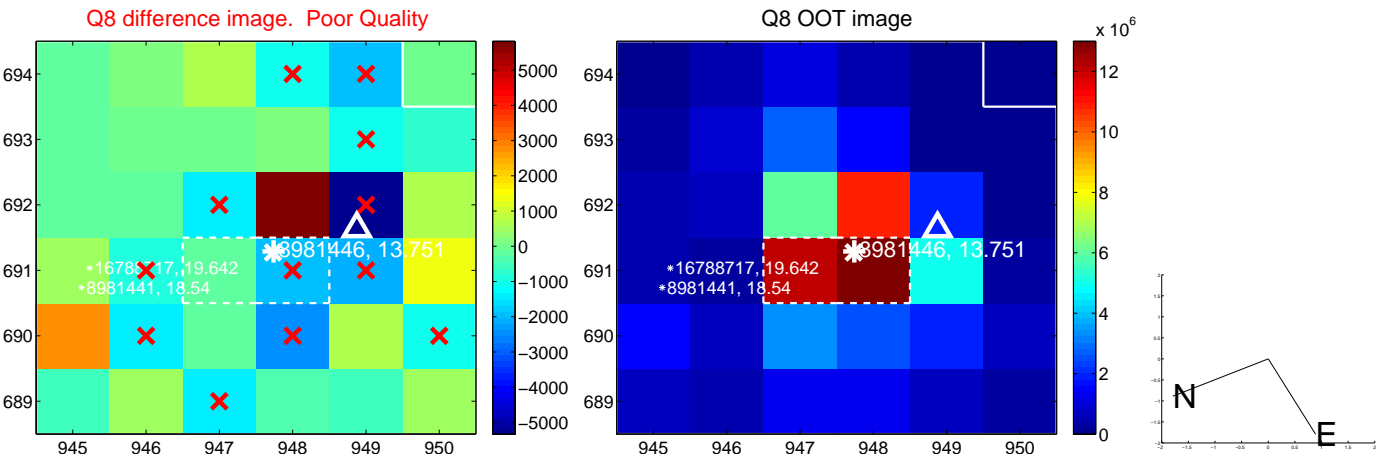
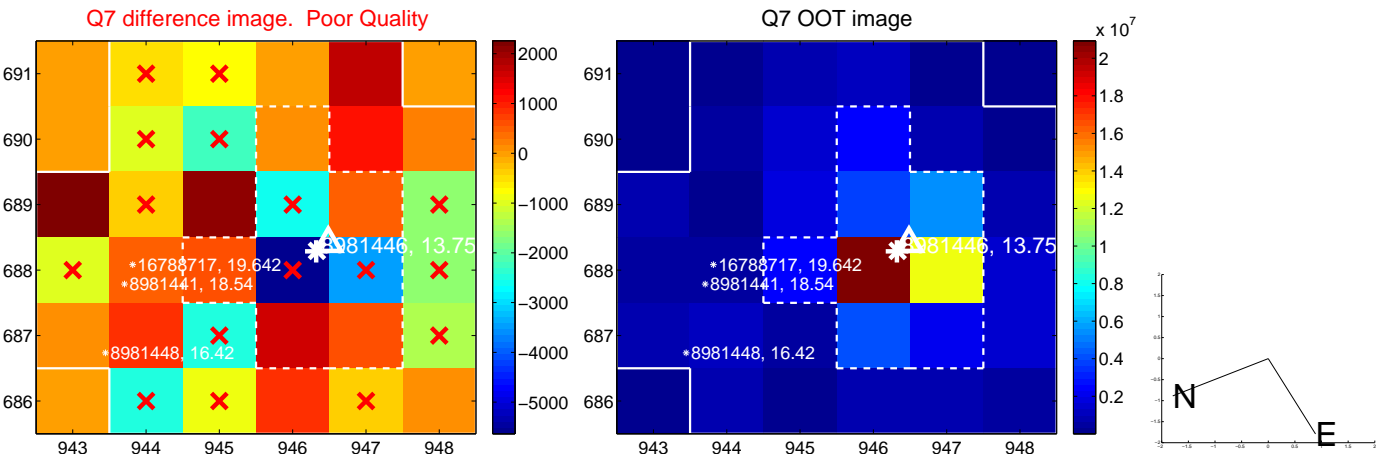
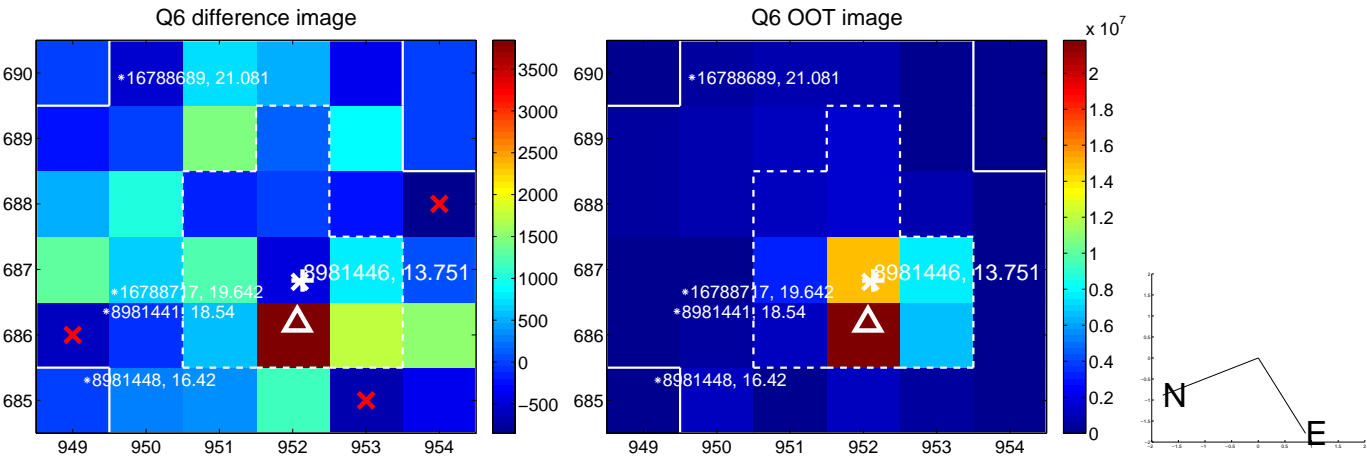
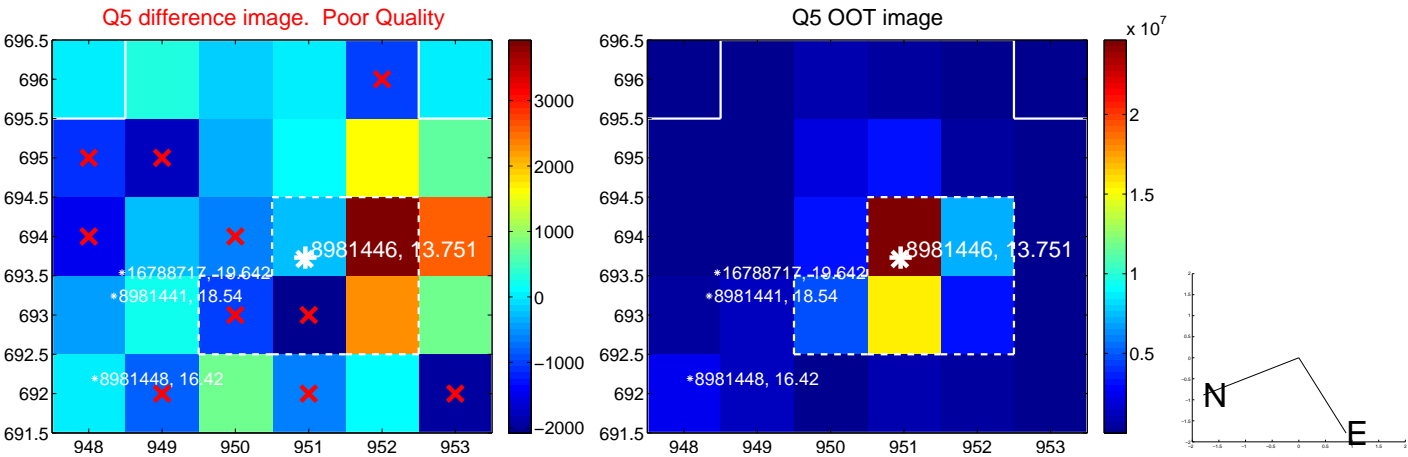


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

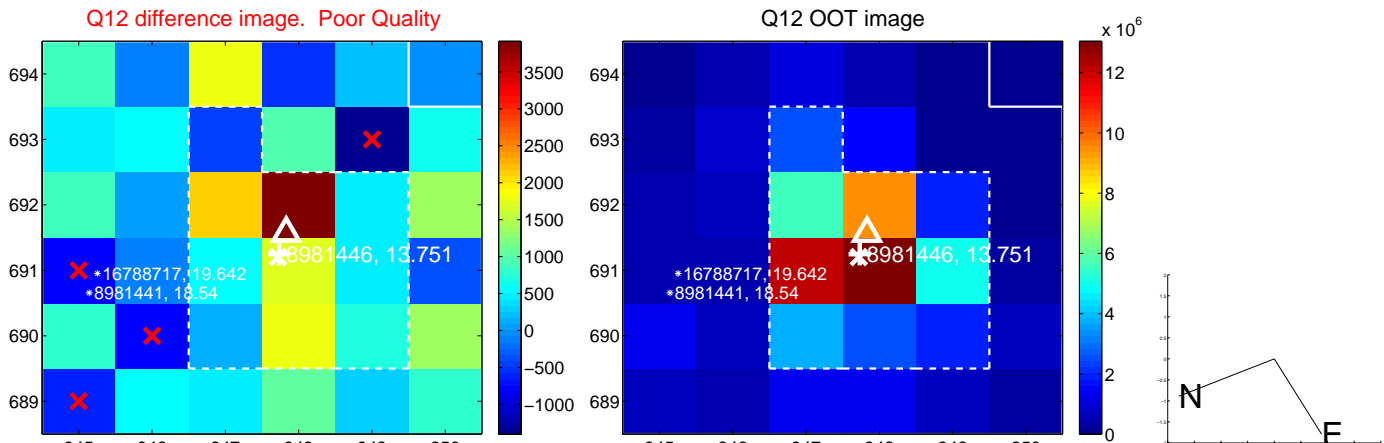
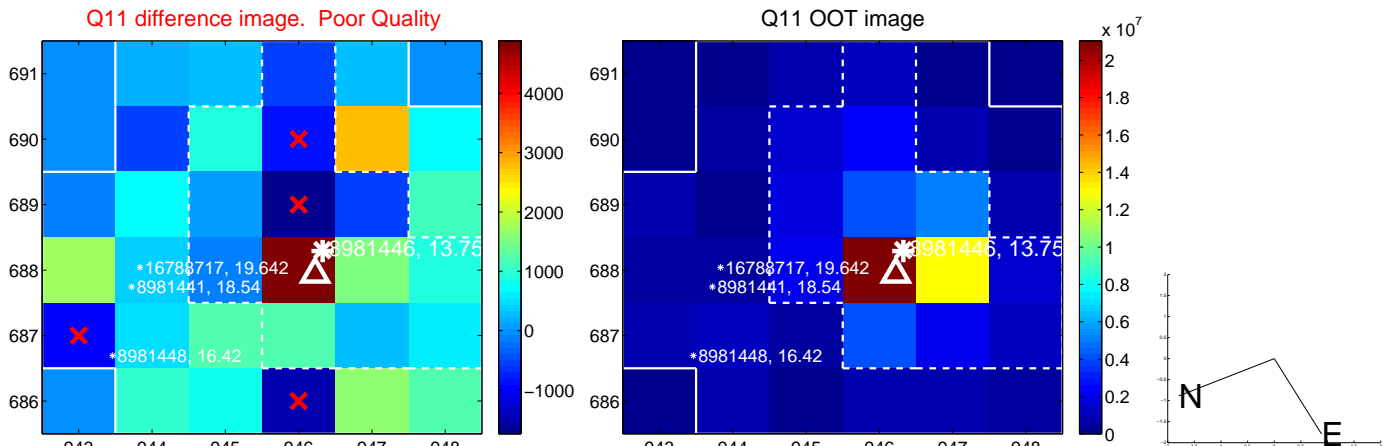
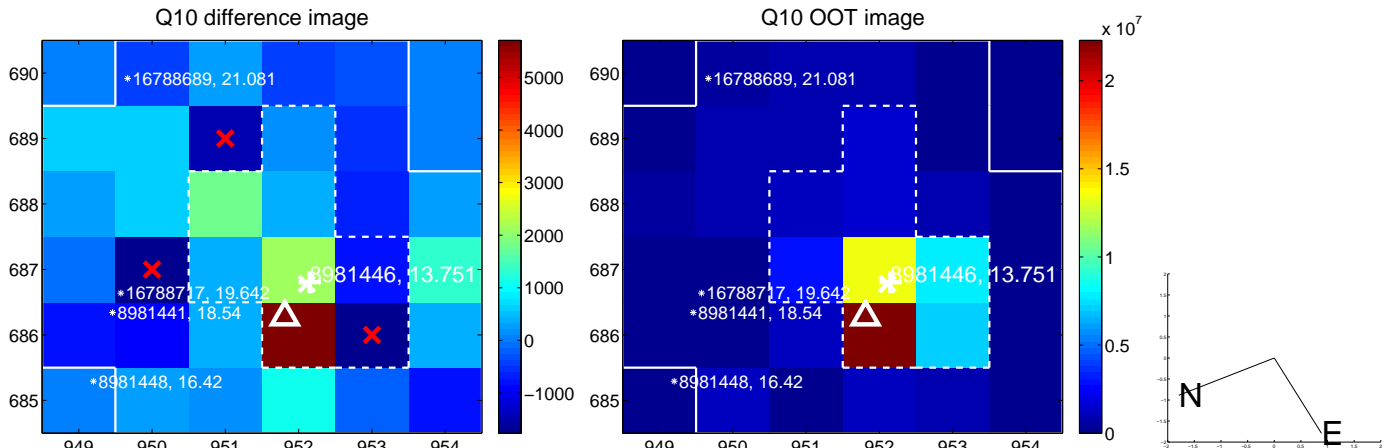
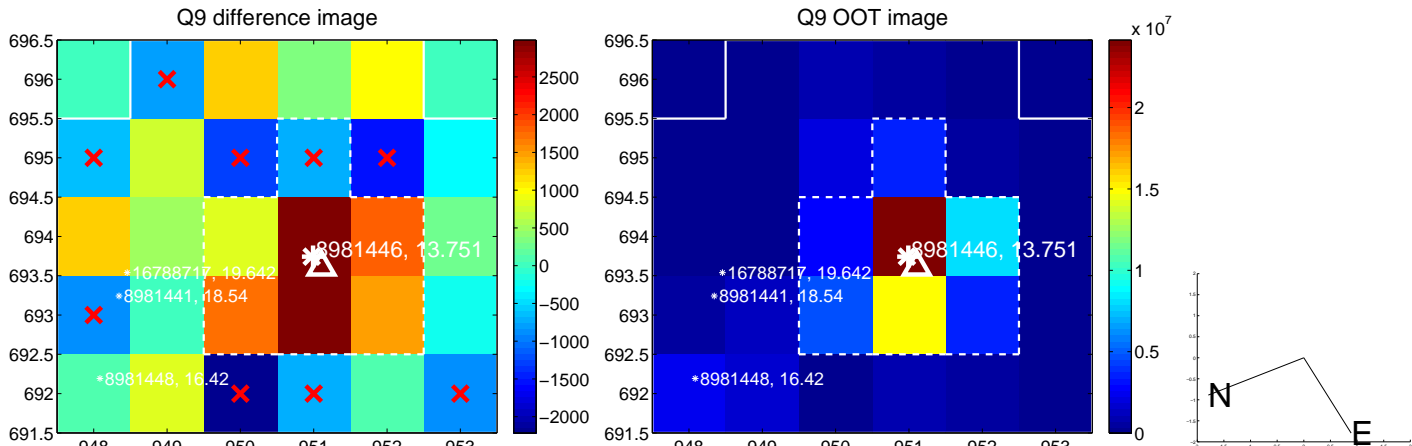
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



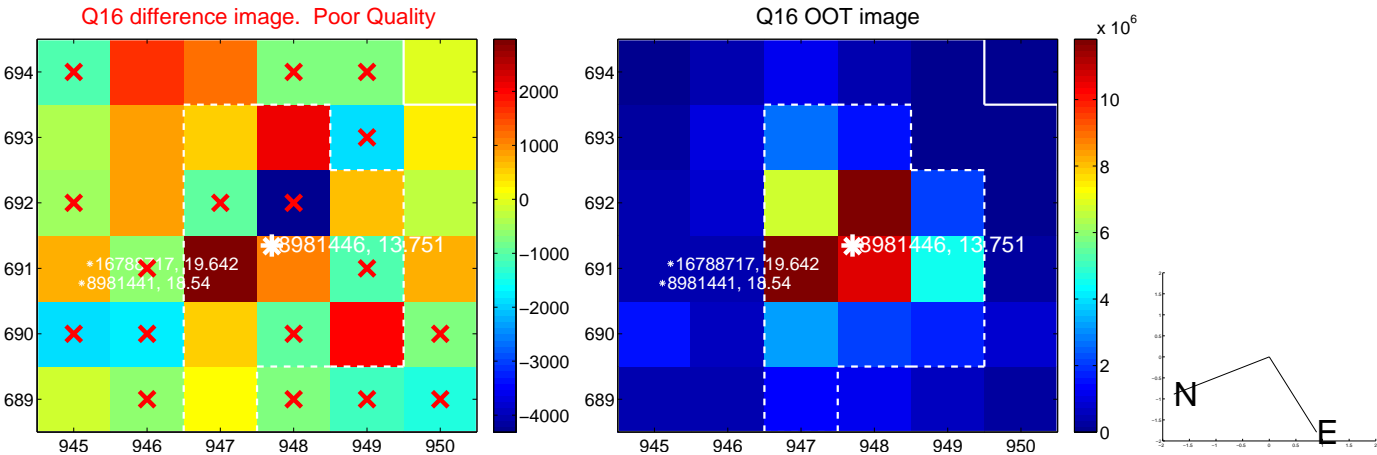
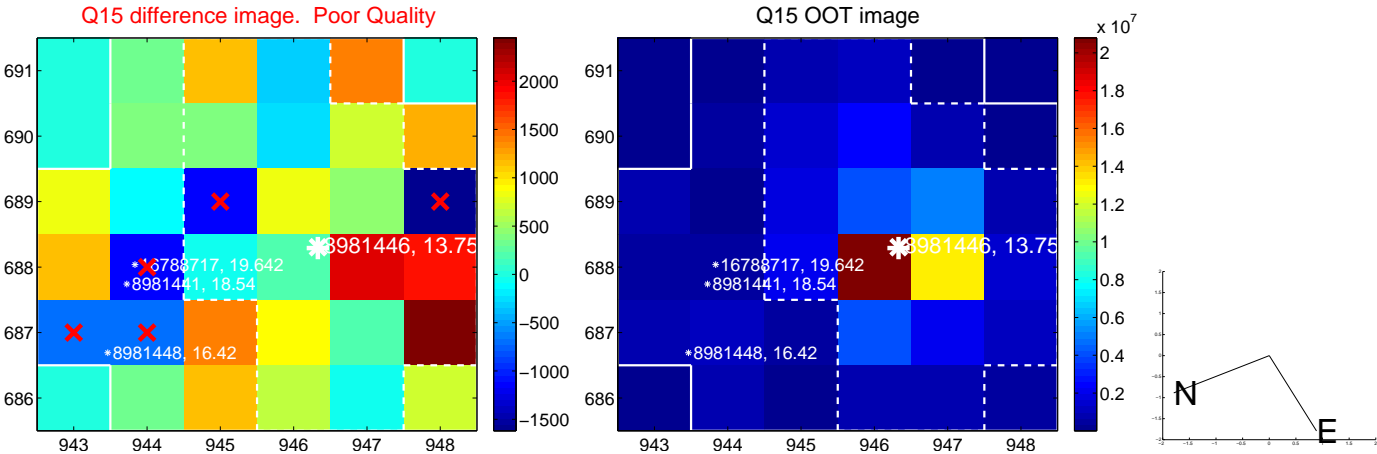
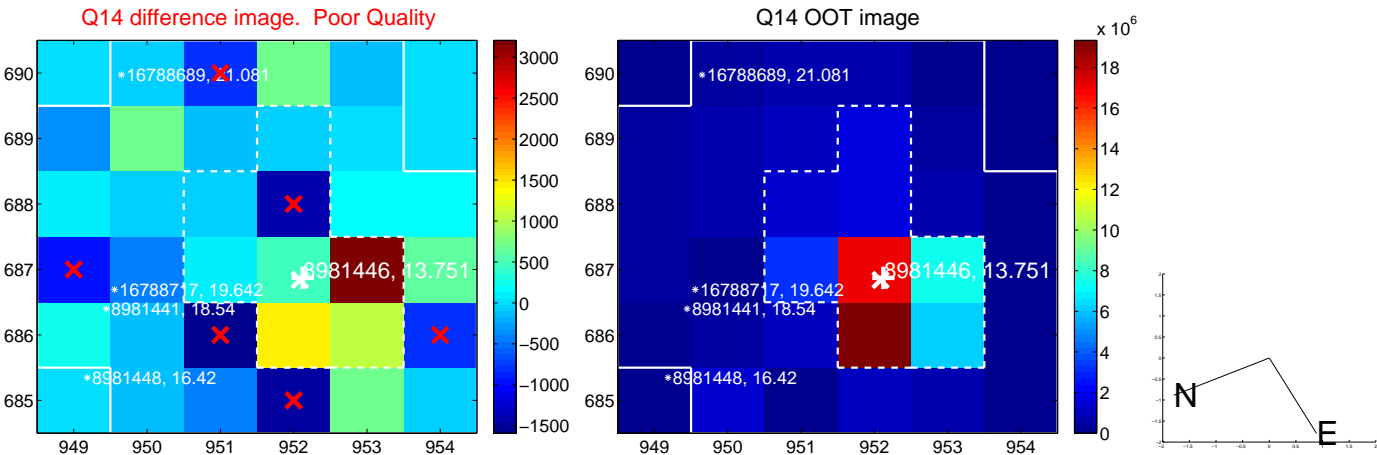
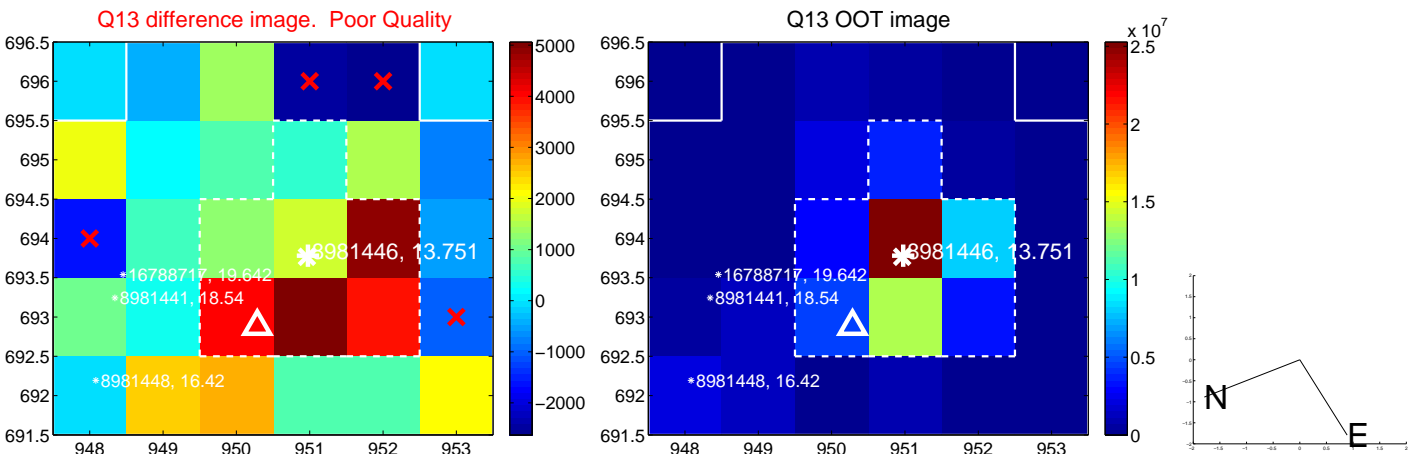
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



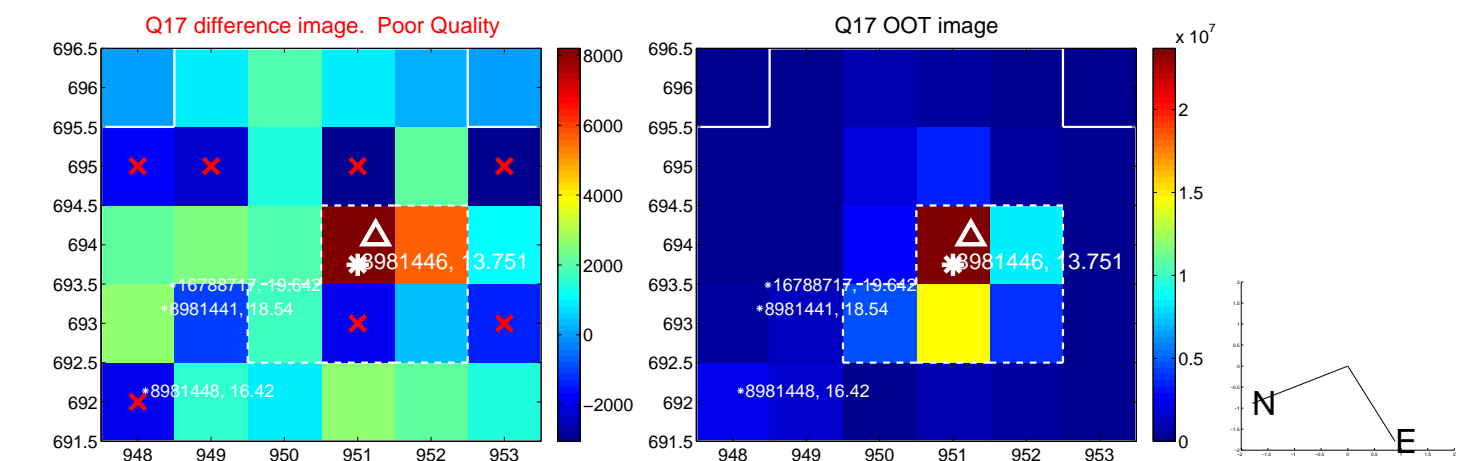
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



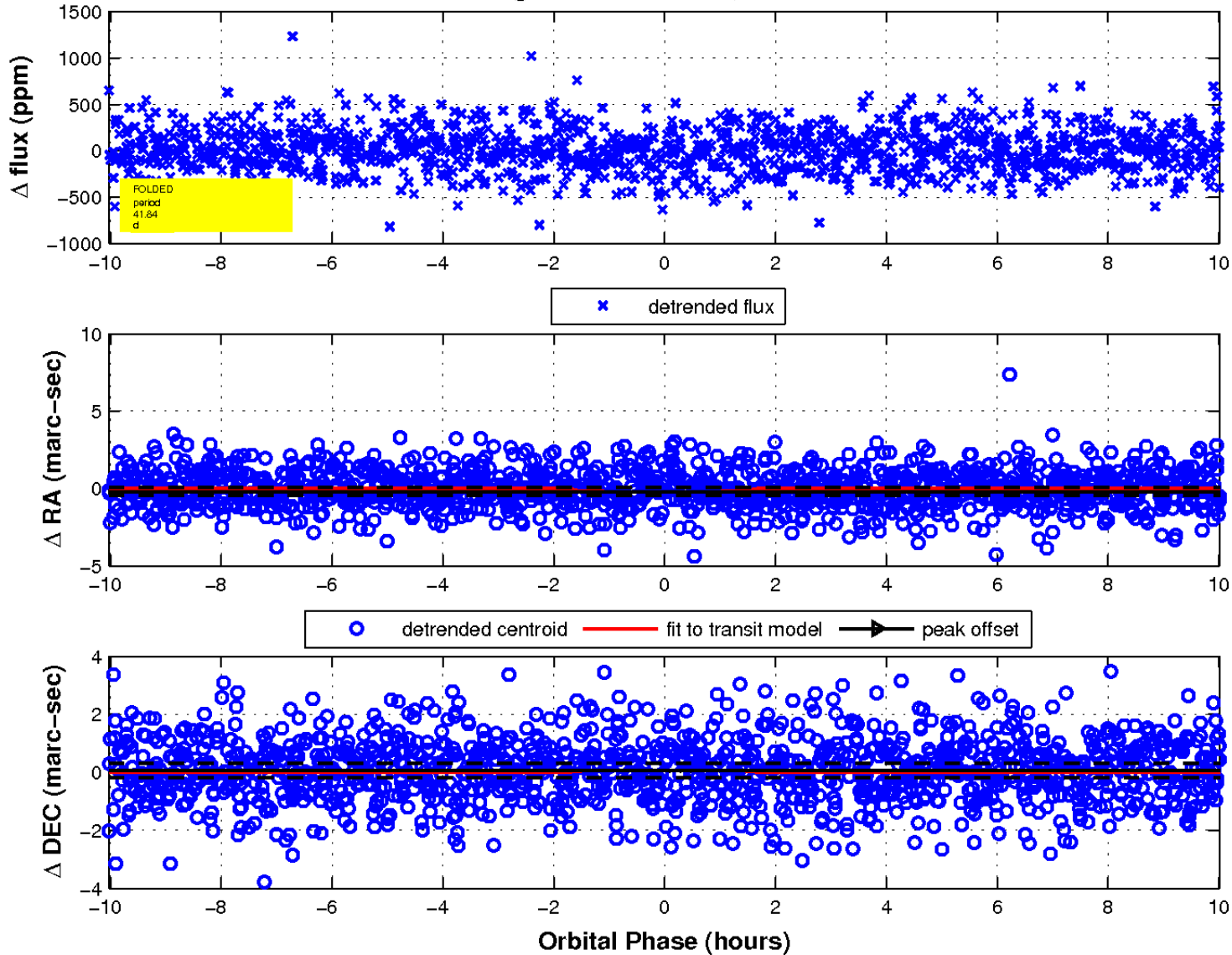
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

